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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Perfect score:
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                                                                                                                                                                                                                                                   seq length: 0 seq length: 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein search, using sw model
 A_Geneseq_29Jan04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
                                                                                                                                                                                                                                                                                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
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103.669 Million cell updates/sec
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123
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                                                                                                                                                                                                                                                                                                                                          1586107 seqs, 282547505 residues
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geneseqp1990s:*
geneseqp2001s:*
geneseqp2001s:*
geneseqp2002s:*
geneseqp2003as:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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ABR55582	ABJ37518	AAR30615	AAJ03266	AAJ03656	AAJ03571	AAR30986	AAU84605	AAR84515	N	AAM50830	92	AAU84604	AAR56608	AAR38292	AAR25132	AAR67636	AAR38294	AAR38293	AAR13347	AAR33863	5	AAR34055	AAY80190	AAW99648	HD		000
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AAJ00501	AAJ01576	AAJ00986	AAJ02919	AAJ03613	AAJ03221	AAJ02595	AAJ03528	AAY80191	AAW99649	AAR30685	•	AAY44550	AAJ02596	9	AAJ03466	AAW10269	ABR55583	AAR56607	AAJ03982
Aaj00501	Aaj01576	8600	Aaj02919	Aaj03613	Aaj03221	Aaj02595	Aaj03528	Aay80191	Aaw99649	Aar30685		44550	02	Aaj02920	Aaj 03466	Aaw10269	Abr55583	Aar56607	Aa j 03 98 2
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ALIGNMENTS

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A method has been developed for virus-containing sample is treatment solution comprising: (i) an anionic surfactant, amphoteric surfactant; (iii) a non-ionic surfactant; and (denaturing agent. Also described in the present invention similar treatment method by using a solution containing: (ion; (ii) an acidifying agent; and (iii) a non-ionic surfactanty method for viruses by quantitative detection of the viral antigen using a probe for reaction with the specific viral antigen; (3) a hybridoma cell line chosen from HCII-6005), HCII-14 (FERM BP-6006), HCII-10 (FERM BP-6004), HC	(TOFU) TONEN CORP. Aoyagi K, Ohue C, Iida K, Kimura T, Yagi S; WPI; 1999-153953/13. Detection and assay for, e.g. hepatitis C virus - comprise the sample with surfactants, protein denaturing agent prio immunoassay. Example 3; Page 88; 98pp; Japanese.	Hepatitis C virus. WO9906836-A1. 11-FEB-1999. 04-AUG-1998; 98WO-JP003476. 04-AUG-1997; 97JP-00209515. 04-AUG-1997; 97JP-00209522. 31-JUL-1998; 98JP-00218136.	LT 1 9448 AAW99648 standard; peptide; 21 AA. AAW99648; 21-MAY-1999 (first entry) Hepatitis C virus peptide SEQ ID NO:5. Hepatitis C virus; HCV; hepatitis B virus; diagnosis; detection viral infection.

Detection and assay for, e.g. hepatitis C virus - comprises treatment the sample with surfactants, protein denaturing agent prior to immunoassay. of.

A method has been developed for virus-containing sample is to use a treatment solution comprising: (i) an anionic surfactant; (ii) an amphoteric surfactant; (iii) a non-ionic surfactant; and (iv) a protein denaturing agent. Also described in the present invention are: (1) a similar treatment method by using a solution containing: (i) a chaotropic ion; (ii) an acidifying agent; and (iii) a non-ionic surfactant; (2) an assaying method for viruses by quantitative detection of the presence of viral antigen using a probe for reaction with the specifically recognised viral antigen, (3) a hybridoma cell line chosen from HC11-1 (FERM BP-6005), HC11-14 (FERM BP-6006), HC11-10 (FERM BP-6004), HC11-3 (FERM BP-6003); (4) a monoclonal antibody produced by

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RESULT 2
AAY80190
ID AAY8
XX AAY8
AC AAY8
AC AAY8
XX Hepa
XX ADI
XX ADI
XX ADI
XX Hepa
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Best Local S
Matches 21
                      A method has been developed of assaying for hepatitis C virus (HCV). The method comprises binding a viral core antigen or anti-HCV antibody to a suitable probe in the presence of a non-ionic surfactant and/or a cationic surfactant with secondary, tertiary or quaternary amine groups and carbon chains with 10 or more carbon atoms. The assay is useful for the detection of HCV infection in biological samples, especially in donated blood. The method is highly sensitive for detecting HCV and reduces the window period between negative and positive screening tests for HCV on blood donated by a recently infected person. The present sequence represents an HCV peptide which is used in an example from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hepatitis C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Method of assaying for hepatitis C virus infection comprises binding viral core antigen or anti-hepatitis C virus antibodies with a probe
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                                                                                                                                                                                                                                                                                                                                                                                                                             Example 3; Page 45; 55pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the presence of a surfactant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Aoyagi K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-JUL-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ADLI-) ADVANCED LIFE SCI INST INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ohue C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         virus peptide sequence SEQ ID NO:5.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Iida K,
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Pred. No. 3.2e-10;
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RESULT 4
ABJ37517
ID ABJ3
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AC ABJ3
XX
AC ABJ3
XX
AC ABJ3
XX
AC ABJ3
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Best Local (
                                                                                                                                                            Best
                                                                                                                                                                                                              passive immuno-prophylaxis and the to prevent HCV infection. See also to correct PN field.)
                                                                                                                                                                                                                         The synthetic peptide corresponds to residues 98-121 of the C domain of HCV. The peptide may be used for the sensitive and specific detection of HCV infection Antibodies raised against the peptide can be used for passive immuno-prophylaxis and the HCV antigens can be used in vaccines to prevent HCV infection. See also AAR34041-65. (Updated on 25-MAR-2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAR-2003
22-JUL-1993
           10-MAY-2003
                                 ABJ37517;
                                                     ABJ37517
                                                                                                                                                                                          Sequence 24
                                                                                                                                                                                                                                                                                      Example 7; Page 130; 190pp; English.
                                                                                                                                                                                                                                                                                                          Detection of hepatitis C virus antigens - using HCV reactive antibody bound to solid support and competitive HCV antigen-reporter complex.
                                                                                                                                                                                                                                                                                                                                            WPI; 1993-117737/14.
                                                                                                                                                                                                                                                                                                                                                                Dreesman GR,
                                                                                                                                                                                                                                                                                                                                                                                                        16-SEP-1991;
12-FEB-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                        16-SEP-1992;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9306488-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hepatitis C virus; non structural region; antigen; diagnosis; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HCV C domain
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                                                     standard;
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           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                Burk KH,
                                                                                                                                                                                                                                                                                                                                                                                                         91US-00762135.
92US-00835717.
                                                                                                                                                                                                                                                                                                                                                                                                                                        92WO-US007865
                                                     peptide;
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           entry)
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                                                                                                                                                           91.1%;
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                                                                                                                                                 Score 112; DE
Pred. No. 1.2e
1; Mismatches
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Pred. No. 3.2e-10;
'; Mismatches 0;
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1.2e-08;
nes 1;
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RESULT 5
AAR33863
AAR33863
XX
AC AAR3
AC AAR3
AC AAR3
AC AAR3
XX
DT 25-7
DT 19-1
XX
DE POl
XX
DE POl
XX
DE W Hef
KW Hef
KW P4(
XX
SS Sy)
XX
PN WO
XX
PF 01
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                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a novel method for simultaneously detecting a hepatitis C virus (HCV) antigen and an HCV antibody in a test sample. The novel method comprises contacting the test sample with the antigen and antibody, both coated on solid phases, independently, for a time and under conditions sufficient for the formation of an antibody/antigen complex and a second antibody/antigen complex, and detecting the two complexes, which indicate the presence of the antigen and antibody in the test sample. The method is useful for detecting a hepatitis C virus (HCV) antigen and HCV antibody in a test sample. This sequence represents an HCV-core derived peptide relating to the HCV antigen/antibody detection method of the invention
                                                                                                     Hepatitis p408.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Detecting hepatitis C virus antigen and antibody in sample, by con sample with HCV antigen and antibody, for forming HCV antigen-test antibody complex and HCV antibody-test antigen complex, detecting
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Desai
                                                                                                                                                                25-MAR-2003
19-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                            Sequence 25
  16-SEP-1992;
                          01-APR-1993
                                                    WO9306247-A1
                                                                            Synthetic.
                                                                                                                                        Polypeptide
                                                                                                                                                                                                                            AAR33863 standard; peptide; 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 1; Page 17; 92pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complexes.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-JUN-2002;
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17-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003002749-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hepatitis C virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hepatitis C virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HCV-core
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ABBO ) ABBOTT LAB.
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Stewart JL;
                                                                                                                                      66d
                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                             virus; NANBH; assay; antibody; p380-JH1; p380-J; p380LG;
                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00891983
2002US-00173480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002WO-US019958
  92WO-US007813
                                                                                                                                      comprising HCV viral antigen.
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                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                      91.1%;
90.5%;
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                                                                                                                                                                                                                                                                                                                                                       Score 112; DB 6;
Pred. No. 1.3e-08;
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RESULT 6
ARA13347
ID ARA13
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Best Local S
Matches 19
                                            The polypeptide may be prepared by solid phase synthesis fragment coupling (pref.) or using recombinant technology. The assay has increased sensitivity and is more specific than assays using the polypeptide C100-3 (EP-318216). See also AAQ13146-48 and AAR13343-65. (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The synthetic peptide p99 represents amino acid residues 99-126 of the hepatitis C viral antigen. The peptide may be used in an assay to determit bodies to HCV and thus to diagnose chronic HCV infection. See also AAR33862-87. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                             Immunological assays for hepatitis C virus antibody - by using polypeptide(s) contg. epitope(s) of hepatitis C virus antigens
                                                                                                                                                                                                                                                                                                                         WPI; 1991-238393/33.
                                                                                                                                                                                                                                                                                                                                                                          (ABBO )
                                                                                                                                                                                                                                                                                                                                                                                                                                              22-DEC-1989;
07-NOV-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C100-3; hepatitis C virus; immunoassay; epitope.
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23-OCT-1991
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                                                                                                                                                                                                 Claim 10; Page 48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-DEC-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-JUN-1991.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P99 HCV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR13347;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Assay for detecting
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-SEP-1991;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  say for detecting presence of antibody to hepatitis C viral antigen - contacting sample with polypeptide contg. at least one epitope of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N
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LESNIEWSKI
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(first ent
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90US-00610180.
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                                                                                                                                                                                              62pp; English.
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Pred. No. 1
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.4e-08;
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See also
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Sequence 29

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Length 29;

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Best Local S
Matches 19
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Best Local S
Matches 19
                  NANB hepatitis virus HC-OM gene
                                                                                                                                                                                                 Sequence 20
                                                                                                                                                                                                                   The sequence is that of NANB hepatitis virus HC-OM gene polypeptide CP-5-2. It may may be used in a system for detecting NANB hepatitis. This method is highly specific and sensitive, and can detect NANB hepatitis virus which could not be detected by conventional methods
                                                                                                                                                                                                                                                                                   Antigen related to non-A and non-B hepatitis virus - comprises non-translation region comprising 340 - 341 mols. of nucleotides, non-translation region comprising 1885 - 2551 mols. of nucleotides incluregion 1,149 and, etc.
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08-NOV-1990;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Non-A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR38293 standard; protein;
                                     21-OCT-1993
                                                        AAR38294;
                                                                                                                                                                                                                                                                  Claim 29; Page 63; 73pp; Japanese.
                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAQ43903.
                                                                                                                                                                                                                                                                                                                                                                                                             10-APR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                 16-APR-1993
                                                                          AAR38294 standard;
                                                                                                                                                                                                                                                                                                                                             WPI; 1993-199637/25.
                                                                                                                                                                                                                                                                                                                                                                (NAKA/) NAKAMURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hepatitis virus HC-OM
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19; Conserv
non-B;
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virus; polymerase
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90JP-00304405.
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                                                                         protein;
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                                     entry)
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90.5%;
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Pred. No. 1.5e-08;
1; Mismatches 1
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Pred. No. 1.4e-08;
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                  polypeptide CP-5-3.
 chain reaction;
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 detection; sensitive;
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RESULT 9
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Best Local S
Matches 18
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25-MAR-2003
18-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antigen related to non-A and non-B hepatitis virus - comprises translation region comprising 340 - 341 mols. of nucleotides, n translation region comprising 1885 - 2551 mols. of nucleotides region 1,149 and, etc.
                                                                                                                                                                                                                                                                                               Non-A.
                                                                                                                                                                                                                                                                                                                                                              Non-A Non-B hepatitis virus; structural region; cDNA to genomic RNA; detection; reagent; anti-Non-A Non-B hepatitis virus antibody; vaccine; antigen; epitope; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The sequence is that of NANB hepatitis virus HC-OM gene polypeptide CP-5-3. It may may be used in a system for detecting NANB hepatitis. This method is highly specific and sensitive, and can detect NANB hepatitis virus which could not be detected by conventional methods
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non-B hepatitis
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08-NOV-1990;
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                                                                                       28-MAY-1993;
02-MAR-1994;
                                                                                                                                                             27-MAY-1994;
                                                                                                                                                                                                        14-DEC-1994
                                                                                                                                                                                                                                                    EP628572-A2
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                                             (EISA ) EISAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (NAKA/) NAKAMURA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1993-199637/25.
DB; AAQ43904.
                                                                                                                                                                                                                                                                                               hepatitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 RGSRPSWGPTDPRHRSRNVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          of Non-A Non-B hepatitis virus structural protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RGSRPTWGPTDPRHRSRNLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (revised)
(revised)
(first en
                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63; 73pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90JP-00153401.
90JP-00304405.
                                                                                         93JP-00126709
94JP-00032201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91JP-00196175
                                                                                                                                                               94EP-00108256
                                                                                                                                                                                                                                                                                                    virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             virus
                                             LID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89.4%;
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Pred. No. 2e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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Aoyama M,

Obara

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Tohmatsu

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Sawada

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Hosoda T,

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 18
The sequences given in AAR25130-35 are peptides which have reactivity to the antibody against hepatitis C virus (HCV). They can be used on their own or as a mixture two different peptides. Using these peptides, HCV antibody positive patients can be detected and hepatitis caused by blood transfusion can be prevented
                                                                                                                                                                                              New peptides acting as antigenic analogues of human hepatitis C virus useful for detecting HCV antibody positive patients.
                                                                                                                                                                                                                                                                         WPI; 1992-231947/28
                                                                                                                                                                                                                                                                                                                                                                     19-OCT-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                   19-OCT-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-JUN-1992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JP04159298-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hepatitis C virus; blood transfusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-DEC-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR25132 standard; protein; 20
                                                                                                                                            Claim 1; Page 1; 14pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New non-A non-B hepatitis virus sub-type - used to develop prods. for detection, diagnosis, prevention and treatment of non-A non-B hepatitis.
                                                                                                                                                                                                                                                                                                                      (OLYU ) OLYMPUS OPTICAL CO LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 3; Page 40; 59pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1995-015655/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           l Similarity 90.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 RGSRPSWGPTDPRHRSRNVG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RGSRPTWGPTDPRHRSRNLG 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                                                                                                                                                   90JP-00282431
                                                                                                                                                                                                                                                                                                                                                                       90JP-00282431.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>∵</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 110; DB 2
Pred. No. 2e-08;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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RESULT 12
AAR56608
ID AAR56
XX
AC AAR56
XX
DT 24-MA

AAR56608; AAR56608

standard;

protein;

20

A

24-MAR-1995

(first entry)

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RESULT 11
AAR38292
ID AAR38
XX AAR38
XX AAR38
XX NANB
XX NON-A
XX NON-A
XX NON-B
XX NON-B
XX I2-JU
PR 08-NC
XX 12-JU
PR 08-NC
XX NANB
XX I2-JU
PR 10-AF
XX I1-JU
PR 10-AF
XX I1-JU
PR 10-AF
XX I1-JU
PR 10-AF
XX INAKE
PT Trank
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                                                                                                   Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                           The sequence is that of NANB hepatitis virus HC-OM gene polypeptide CP-5-
1. It may may be used in a system for detecting NANB hepatitis. This
method is highly specific and sensitive, and can detect NANB hepatitis
virus which could not be detected by conventional methods
                                                                                                                                                                                                           Sequence 20 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Antigen related to non-A and non-B hepatitis virus - comprises translation region comprising 340 - 341 mols. of nucleotides, n translation region comprising 1885 - 2551 mols. of nucleotides region 1,149 and, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAQ43902.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-JUN-1990;
08-NOV-1990;
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                                                                                                                                                                                                                                                                                                                                                                                             Claim 28; Page 63; 73pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-APR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JP05091884-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Non-A, non-B; virus; specific; HCV; NANBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NANB hepatitis virus HC-OM gene polypeptide CP-5-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-OCT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR38292;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR38292 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1993-199637/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  non-B hepatitis virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (NAKA/) NAKAMURA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-APR-1993.
                                                                                                     18;
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                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                RGSRPSWGPTDPRHRSRNVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RGSRPSWGPTDPRRRSRNLG 20
RGSRPSWGPTDPRRRSRNLG
                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
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90JP-00304405.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91JP-00196175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein;
                                                                                                                            90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        polymerase chain reaction; detection; sensitive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                     1.
                                                                                                                            Score 105;
Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 105; DB 2;
Pred. No. 9.9e-08;
                                                21
20
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                                                                                                     Mismatches
                                                                                                                            DB 2;
.9e-08;
                                                                                                                                                Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  comprises non-
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                                                                                                     Gaps
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                                                                                                     0
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RESULT 13
AAU84604
AAU 84604
AC AAU84
AC AAU84
XX Savir
XX Savir
XX Savir
XX Savir
XX Savir
XX Hepat
XX Hepat
XX Hepat
XX Hepat
XX Hepat
XX Hepat
XX Savir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A T-cell stimulating peptide is claimed which is ca. 5-20 amino acids long and part of the core protein of HCV and is recognised by and stimulates. T-cells. A CD8-positive T-cell stimulating peptide has the sequence given in AAR56606 (NP-9) or AAR56616 (9MA). A CD4- positive T-cell stimulating peptide has the sequence given in AAR56609 (NP-12) or AAR56614 (NP-17). Synthetic peptide mixts. (Mix A: NP-1 - NP-5, Mix B: NP-6 - NP-10, Mix C: NP-11 - NP14, MixD: NP-15 - NP-18) were used in experiments to evaluate activity. Peptides 9MA, 9CM and 9CA (AAR56616-18)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACA
                                                                                                                29-NOV-2001
                                                                                                                                                   WO200190197-A1
                                                                                                                                                                                       Hepatitis C virus.
                                                                                                                                                                                                                      Savine; vaccine; cancer; viral infection; HIV; hepatitis C virus; viral infection; human immunodeficieny virus; melanoma; bacterial infection; Salmonella, Legionella; parasitic infection; Trypanosoma; Toxoplasma; Giardia.
                                                                                                                                                                                                                                                                                                                     HCV HepCla segment 7.
                                                                                                                                                                                                                                                                                                                                                          08-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                             AAU84604;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Fig 2; 14pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1994-269451/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-AUG-1992;
10-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JP06199894-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hepatitis C virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hepatitis C virus; HCV; core protein; epitope; T-cell; immunity; CDB,
                                     26-MAY-2000; 2000AU-00007761.
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU84604 standard; peptide; 30
                                                                          25-MAY-2001; 2001WO-AU000622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ASAH ) ASAHI KASEI (INOM/) INOMAWARI M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   I cell epitope present in the core protein region of Hepatitis C virus (\mathrm{HCV}) - used for activation of cellular immunity mechanisms.
   (AUSU ) UNIV AUSTRALIAN NAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               variants of peptide NP-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 peptide NP-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RGSRPSWGPTDPRHRSRNVG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RGSRPSWGPTDPRRRSRNLG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KASEI KOGYO KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92JP-00228965.
92JP-00299691.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93JP-00076791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    85.4%;
90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 105; DB 2;
Pred. No. 9.9e-08;
1; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                   A
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Sequence 30

AA;

Length 30

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is

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modulating immune responses preferably directed against a pathogen or a cancer, (e.g., cancers of the lung, breast, ovary, cervix, colon, head and neck, pancreas, prostate, stomach, bladder, kidney, bone liver, oesophagus, brain, testicle, uterus), as potentiating agents. Compositions comprising the polypeptide may be used in the treatment or prophylaxis against virus (such as infections caused by HIV (human immunodeficiency virus), hepatitis, influenza, Japanese encephalitis virus, Epstein-Barr virus and respiratory syncytial virus), bacterial (e.g., infections caused by Neisseria, Meningococcal, Haemophilus, (e.g., infections caused by Plasmodium, Schietosoma, Legionella and Mycobacterium or parasitic (e.g., infections caused by Plasmodium, Schietosoma, Lesismania, Trypanosoma, Toxoplasma and Giardia) infections. The present sequence is a peptide derived from a parent protein used to construct a savine of the
                                                                                                                                                                                                                                                                                                                                                                                                                     parent polypeptide to impede, abrogate or otherwise alter at least one function associated with the parent polypeptide and for inducing an immune response against a pathogen or cancer. Also included are a synthetic polynucleotide encoding and a computer system for designing the synthetic polypeptides. The synthetic polypeptides and polynucleotides are referred to as a Savine. The synthetic polypeptide is useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New synthetic polypeptides having several different segments of at least one parent polypeptide linked together differently compared to the linkage in the parent polypeptide, for inducing immune response against a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a new synthetic polypeptide (I) comprising several different segments of at least one parent polypeptide linked together in a different relationship relative to their linkage in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 2; Fig 26; 364pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pathogen or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; ABK36442
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RESULT 14
AAR31922
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Best Local S
Matches 18
                                                                                                             25-MAR-2003
03-MAR-1993
                               03-APR-1992;
                                             07-OCT-1992
                                                          EP507615-A1
                                                                      Synthetic.
                                                                                  Hepatitis C
                                                                                               HCV peptide
                                                                                                                                AAR31922;
                                                                                                                                              AAR31922 standard;
                                                                                                                                                                               2
                                                                                                                                                                                                       18;
                                                                                                                                                                                      1 PRGSRPSWGPTDPRHRSRN 19
                                                                                                                                                                                                              Similarity
                                                                                                                                                                             PRGSRPSWGPTDPRRRSRN
                                                                                   virus; vaccine; screening; diagnosis
                                                                                                 BCH-443
                                                                                                                                                                                                       Conservative
                                                                                                             (revised)
(first en
                               92EP-00302975.
                                                                                                                                             peptide; 27
                                                                                                             entry)
                                                                                                                                                                                                              85.4%;
94.7%;
                                                                                                                                                                                                       <u>,</u>
                                                                                                                                                                                                              Score 105;
Pred. No. 1.
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                                                                                                                                                                                                              DB 5;
.5e-07;
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05-APR-1991;

91US-00681701

BIOCHEM PHARMA INC

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RESULT 15
AAM50830
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Best Local S
Matches 17
The present sequence is that of peptide MDL-8 comprising amino acid residues 103-120 of the hepatitis C virus (HCV) polyprotein core region (see AAM50816). A panel of overlapping peptides between positions 1 and 186 of the HCV core region was synthesised and tested for immunoreactivity with a commercially available human serum panel. All of the immunoreactivity was concentrated within the core region between amino acids 1 to 80. MDL-8 did not include a major immunodominant region. The invention provides a highly immunoreactive mosaic antigen composition (MAC) comprising 2 or more immunoreactive peptides (see AAM50816-27), each of which is immobilised to a carrier. The unique combination of HCV core peptides in the MAC provides higher specificity and sensitivity for
                                                                                                                                                                                                            New hepatitis C virus (HCV) peptides and mosaic antigen composition comprising the peptides, useful as immunoreagents for detecting HCV antibodies infection, or as an immunogen for stimulating production antibodies against HCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The peptide BCH-443 was synthesised based upon amino acids 101-127 of hepatitits C virus (HCV) envelope protein. It is useful as an active ingredient in vaccines against HCV and can be used for screening and diagnosing HCV infection. See also AAR31917-R31926. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HCV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-AUG-2003
01-MAY-2002
                                                                                                                                                                                  Example 1;
                                                                                                                                                                                                                                                                                     WPI; 2002-179696/23.
                                                                                                                                                                                                                                                                                                                   Chan HKW,
                                                                                                                                                                                                                                                                                                                                               (MEDM-) MEDMIRA INC.
                                                                                                                                                                                                                                                                                                                                                                           07-JUL-2000; 2000CA-02311022.
                                                                                                                                                                                                                                                                                                                                                                                                        06-JUL-2001; 2001WO-CA000988
                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200204484-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hepatitis C virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HCV; MDL-8; infection; diagnosis; vaccine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAM50830;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAM50830 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hepatitis C virus peptide(s) and their mixts. - u vaccinating against hepatitis C virus infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 27; 34pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1992-333826/41.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    region peptide MDL-8
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                                                                                                                                                                                                                                                                                                                   Theolis R;
                                                                                                                                                                                  Page 33; 59pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (revised)
(first entry)
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Pred. No. 6.6e-07;
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    used for diagnosing

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Best Local S
Matches 16
                                                                                                                                                                                                         detection of human antibodies specificity to HCV in rapid HCV diagnostic applications. An in vitro diagnostic method for detecting anti-HCV antibodies in a test sample and a diagnostic test kit are provided which use the MAC as an immunoreagent. The HCV MAC may also potentially be used as an immunogen in vaccine compositions. (Updated on 07-AUG-2003 to correct OS field.)
                                                                                                                                                                               Sequence 18 AA;
completed: June 29, me : 58.2353 secs
                                                                                                                                  Local Similarity
                                                                                                                 16;
                                                                                  4 SRPSWGPTDPRHRSRNVG
                                                       SRPSWGPTDPRRRSRNLG
                                                                                                                  Conservative
                                                                                                                                 76.4%;
           2004,
                                                                                  21
                                                         18
                                                                                                              Score 94; DB 5; LC.
Pred. No. 3.1e-06;
Viematches 1;
                                                                                                                                              Length 18;
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Result
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Maximum DB
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
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 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
40.5
39.5
38.5
38.5
38.5
38.5
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seq length: 40
                                                                                                                                    protein search, using sw model
Query
Match Length
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1: /cgn2_6/ptodatta/2/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodatta/2/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BLOSUM62
Gapop 10.0 , Gapext 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               389414 seqs, 51625971 residues
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123
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen
 DΒ
          US-10-13-007-5
PCT-US92-07865-15
US-08-995-0548-3
PCT-US92-07813-3
PCT-US92-07813-3
PCT-US92-07813-3
PCT-US92-07813-3
PCT-US92-07813-3
PCT-US92-07813-3
PCT-US92-07813-3
PCT-US92-07813-8
US-08-974-690C-9
US-08-447-818-301
US-08-444-818-301
US-08-444-818-302
US-08-444-818-302
US-08-444-818-300
US-09-308-345-31
US-09-308-345-31
US-09-314-268-110
US-09-314-268-110
US-09-314-268-110
US-09-314-268-110
US-09-314-268-110
US-09-318-345-34
US-09-318-345-34
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            sequence
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RESULT 2
PCT-US92-07865-15
Sequence 15, Application PC/TUS9207865
Sequence 15, Application PC/TUS9207865
GENERAL INFORMATION:
APPLICANT: Dreesman, Gordan R.
APPLICANT: Burk, Kenneth H.
APPLICANT: Pauletti, Daniel
TITLE OF INVENTION: Peptide-Based Her
TITLE OF INVENTION: Immunoassays
NUMBER OF SEQUENCES: 25
CORRESPONDENCE ADDRESS:

Hepatitis C

ADDRESSEE:

Law Offices of Peter Dehlinger

밁

Query Match Best Local S Matches 21

h 100.0%; Score 123; DB 4; Similarity 100.0%; Pred. No. 2.6e-11; Conservative 0; Mismatches 0;

Length 21; Indels

0

Gaps

RESULT 1 US-10-133-007 Sequence 5, Patent No. GENERAL INF APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: CURRENT APPLICANT APPL	22222222222222222222222222222222222222
3-007-5 No. 623921ca No. 623921ca No. 623921 No. 623921 No. 623921 No. 623921 No. 623921 No. 623921 No. 104 N	
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tion US/1013300 Katsumi Chiharu Kumiko Shintaro Shintaro NUMBER: US/10 20 2-04-26 NUMBER: US/9/5 2000-03-28 NUMBER: US/9/5 1998-07-30 NUMBER: PCT/JP9 1998-07-30 NUMBER: PCT/JP9 1999-07-30 S: 11 version 3.1 version 3.1	30000000000000000000000000000000000000
3/10133 ni	4442244444444
3007 MEASUREMENT OF HEPATITIS /10/133,007 26 9/509,449 0-216094 JP99/04129 peptide including Hepatiti	US-09-101-059-11 US-09-308-345A-33 US-08-676-279-6 US-08-676-279-12 US-08-651-034B-14 US-08-651-034B-14 US-08-651-034B-14 US-08-676-271-47 US-08-244-701B-47 US-08-244-701B-47 US-08-469-260A-306 US-08-469-260A-306 US-08-469-260A-306 US-08-469-260A-306 US-08-469-260A-306 US-08-469-260A-306 US-08-469-260A-306 US-08-460-344A-306 US-09-314-658-68 US-09-314-268-109 US-08-398-68 US-09-314-268-109 US-08-398-68 US-09-314-268-109 US-08-398-028B-6
C VIRUS	Sequence 11, Appl Sequence 32, Appl Sequence 33, Appl Sequence 14, Appl Sequence 14, Appl Sequence 54, Appl Sequence 47, Appl Sequence 47, Appl Sequence 306, Appl Sequence 306, Appl Sequence 306, Appl Sequence 68, Appli Sequence 68, Appli Sequence 68, Appli

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Sequence 3, Application US/08905054B
Patent No. 6596476
GENERAL INFORMATION:
APPLICANT: Laboratories
APPLICANT: Lesniewski, Richard R.
APPLICANT: Leung, Tat K.
TITLE OF INVENTION: HEPATITIS C ASSAY
FILE REFERENCE: 4767, US.C7
CURRENT APPLICATION NUMBER: US/08/905,054B
CURRENT FILING DATE: 1997-08-01
PRIOR ADDITATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Hepatitis C Virus INDIVIDUAL ISOLATE: DP10, an INDIVIDUAL ISOLATE: polyprot PCT-US92-07865-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-905-054B-3
                                                     PRIOR APPLICATION NUMBER: US 08/707,355
PRIOR FILING DATE: 1996-09-04
PRIOR APPLICATION NUMBER: US 08/507,740
PRIOR HILING DATE: 1995-07-26
PRIOR PELLOATION NUMBER: US 08/373,920
PRIOR APPLICATION NUMBER: US 08/373,920
PRIOR FILING DATE: 1995-01-17
PRIOR APPLICATION NUMBER: US 08/183,207
PRIOR APPLICATION NUMBER: US 08/183,207
PRIOR APPLICATION NUMBER: US 07/760,292
PRIOR FILING DATE: 1991-09-16
PRIOR FILING DATE: 1991-09-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (415) 324-0860
TELEPAX: (415) 324-0860
INFORMATION FOR SEQ ID NO: 15:
SEQUENCE CHARACTERISTICS:
LENGTH: 24 amino acids
TYPE: ANINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA;
APPLICATION NUMBER: PCT/US92/07865
FILING DATE: 19920916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: peptide HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Fabian, Gary R.
REGISTRATION NUMBER: 33,875
REFERENCE/DOCKET NUMBER: 1600-0086.41
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 16-SEP-1991
FILING DATE: 12-FEB-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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ORIGINAL SOURCE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 220
CITY: Palo Alto
CTATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
APPLICATION NUMBER: US 07/456,162
                 APPLICATION NUMBER: US 07/610,180 FILING DATE: 1990-11-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRGSRPSWGPTDPRHRSRNVG 21
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NO: 15:
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Pred. No. 1.1e-09;
1; Mismatches 1
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; ORGANISM: Hepatitis C Virus US-08-905-054B-3
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PCT-US92-07813-3
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                                                             RESULT 5
US-07-681-701-10
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Best Local S
Matches 19
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NUMBER OF SEQ ID NOS: 30
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3
Sequence 10, Application US/07681701
Patent No. 5574132
GENERAL INFORMATION:
APPLICANT: Lacroix, Martial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3, Application:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 19;
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                TELEFAX: 708-937-9556
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 28
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                        NAME: POREMBSKIP, PRISCILLA REGISTRATION NUMBER: 33,207 REFERENCE/DOCKET NUMBER: 476 TELECOMMUNICATION INFORMATION: TELEPHONE: 708-937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/I
FILING DATE: 19920916
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: LESNIEWSKI, RICHARD R.
APPLICANT: LEUNG, TAT K.
TITLE OF INVENTION: HEPATITIS C ASSAY
NUMBER OF SEQUENCES: 27
                                                                                                                                                                                                                                                                    MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: ABBOTT LABORATORIES STREET: ONE ABBOTT PARK ROAD CITY: ABBOTT PARK
                                                                                                                                                                                                                                                                                                  LENGTH: 28 amino acids
TYPE: AMINO ACID
STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 60064-3500
                                                                                                                                                                                                                                                                                      TOPOLOGY:
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                                                                                                                                                1 PRGSRPSWGPTDPRHRSRNVG 21
                                                                                                                               N
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Pred. No. 1.3e-09;
1; Mismatches 1
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Pred. No. 1.3e-09;
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FILE REFERENCE: 2752-18

CURRENT PILING DATE: 1996-04-25

CURRENT FILING DATE: 1996-04-25

PRIOR APPLICATION NUMBER: PCT/EP94/03555

PRIOR PILING DATE: 1994-10-28

PRIOR APPLICATION NUMBER: EP 9402718.6

PRIOR FILING DATE: 1993-11-04

NUMBER OF SEQ ID NOS: 286

SOFTWARE: PatentIn version 3.1

SEQ ID NO 8

LENGTH: 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-07-681-701-10
                                                                                    US-08-635-886C-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Haley Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE DOCKET NUMBER: IAF-10
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 715-0673
TELERAX: (212) 715-0673
TELEX: 14-0367
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 27 amino acids
TYPE: AMINO ACID
STEAMDENINGS: 61716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 81.3%;
Best Local Similarity 85.0%;
Matches 17; Conservative
Query Match 76.
Best Local Similarity 94.
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 8, Application US/08635886C
Patent No. 6555114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: LEROUX-ROELS, Geert
APPLICANT: DELEYS, Robert
APPLICANT: MAERTENS, Geert
TITLE OF INVENTION: IMMUNODOMINANT HUMAN T CELL EPITOPES OF HEPATITIS C
TITLE OF INVENTION: VIRUS
TITLE OF INVENTION: VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/681,701
FILING DATE: 19910405
CLASSIFICATION: 530
CLASSIFICATION: 530
                                                                                               TYPE: PRT
ORGANISM: hepatitis C virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: PE
TITLE OF INVENTION:
NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E: FISH & NEAVE
875 THird Avenue
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linear
                    76.48;
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Score 94; DB 4;
Pred. No. 3.5e-07;
0; Mismatches 1
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Pred. No. 6.7e-08;
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                                        Length 20;
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APPLICANT: DELEYS, Robert
APPLICANT: MAERTENS, Geert
TITLE OF INVENTION: IMMUNODOMINANT HUMAN T CELL EPITOPES OF HEPATITIS C
TITLE OF INVENTION: VIRUS
FILE REFERENCE: 2551-94
CURRENT EPELLCATION NUMBER: US/08/974,690C
CURRENT FILING DATE: 1997-11-19
PRIOR APPLICATION NUMBER: PCT/EP94/03555
PRIOR REPLING DATE: 1994-10-28
PRIOR FILING DATE: 1994-10-28
PRIOR PPLICATION NUMBER: EP 93402718.6
PRIOR FILING DATE: 1993-11-04
NUMBER OF SEQ ID NOS: 286
SOPTWARE: Patentin version 3.1
SEQ ID NO 8
LENGTH: 20
TYPE: PRT
COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette, 5.25 inch, 360

COMPUTER: IBM ps/2

OPERATING SYSTEM: PC-DOS

SOFTWARE: Wordperfect
CURRENT APPLICATION NUMBER: US/08/604,365

FILING DATE:
CLASSIFICATION DATA:
PRIOR APPLICATION NUMBER: 07/977,398
FILING DATE: 11-MARCH-1993
APPLICATION NUMBER: PCT/EP92/01468
FILING DATE: 30-JUNE-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
US-08-604-365-22
US-08-604-365-22
; Sequence 22, Application US/08604365
; Sequence 12, Application US/08604365
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US-08-974-690C-8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Seidel, Christoph; Ehrich-Weinreich,
APPLICANT: Gertraud; Bayer, Hubert; Wienhues, Ursula; Ju
APPLICANT: G nther-Gerhard; Inlenfeldt, Hans Georg
TITLE OF INVENTION: HCV Peptide Antigens and Methods for
TITLE OF INVENTION: the Determination of HCV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: LEROUX-ROELS, Geert
                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                    COUNTRY: US
ZIP: 10022
                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Felfe & Lynch
STREET: 805 Third Avenue
CITY: New York City
STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
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                                                                                                                                                                                                                                                         E: Diskette, 5.25 inch, 360 kb storage IBM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               76.4%;
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Pred. No. 3
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RESULT 9
US-09-689-678-22
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Best Local Similarity
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APPLICATION NUMBER: DE 41 41 304.0

FILING DATE: 14-DEC-1991

PRIOR APPLICATION DATA:

APPLICATION NUMBER: DE 42 09 216.9

FILING DATE: 21-MARCH-1992

ATTORNEY/AGENT INFORMATION:

NAME: Tsai, Christine H.

REGISTRATION NUMBER: 34,266

REFERENCE/DOCKET NUMBER: BOER 1010

TELECOMMUNICATION INFORMATION:

TELEPHONE: (212) 688-9200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (212) 838-3884
INFORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTERISTICS:
LENGTH: 15 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: DE 41 FILING DATE: 04-JULY-1991
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                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 360 kb storage
COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: Wordperfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/689,678
FILING DATE: 13-Oct-2000
CLASSIFICATION: cUnknown>
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Felfe & Lynch
SIREET: 805 Third Avenue
CITY: New York City
STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Seidel, Christoph; Ehrich-Weinreich,
Gertraud; Bayer, Hubert; Wienhues, Ursula; Jui
Gunther-Gerhard; Ihlenfeldt, Hans Georg
TITLE OF INVENTION: HCV Peptide Antigens and Methods for
the Determination of HCV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14;
APPLICATION NUMBER: US/08/604,365
FILLING DATE: <Unknown>
APPLICATION NUMBER: 07/977,398
FILLING DATE: 11-MARCH-1993
APPLICATION NUMBER: 07/1992/01468
FILLING DATE: 30-JUNE-1992
APPLICATION NUMBER: DE 41 22 160.5
FILLING DATE: 04-JULY-1991
APPLICATION NUMBER: DE 41 41 304.0
FILLING DATE: 14-DEC-1991
APPLICATION NUMBER: DE 42 09 216.9
FILLING DATE: 14-MARCH-1992
FORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
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US-08-473-475A-25; Sequence 25; Ap; Patent No. 5843
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                                                                       ; MOLECULE TYPE:
US-08-473-475A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 69.1%; So
Best Local Similarity 100.0%; I
Matches 14; Conservative 0;
                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/473,475A
FILING DATE:
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: POREMSEKI, PRISCILLA E.
REGISTRATION NUMBER: 33206
REGISTRATION NUMBER: 33206
Query Match
Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                          TELEPHONE: 708-937-636
TELEPAX: 708-937-2623
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
LENGTH: 31 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 22: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: HEPATITIS GB VIRUS SYNTHETIC PEPTIDES TITLE OF INVENTION: AND USES THEREOF NUMBER OF SEQUENCES: 25
                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 55
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
STREET: 10
                                                                                                       LENGTH: 31 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: ABBOTT PARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Tsai, Christine H.
REGISTRATION NUMBER: 34,266
REFERENCE/DOCKET NUMBER: BOER 1010
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 688-9200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRGSRPSWGPTDPR 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 15 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (212)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/08473475A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E: ABBOTT LABORATORIES
100 ABBOTT PARK ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KNIGGE, MARK F.
JAFFE, KEEVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
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BRIDON, DOMINIQUE P.
SCHROEDER-POLIAK, PAMELLA
   Conservative
                                                                                                                                                                                                                                    708-937-6365
                                                                                      protein
                  52.0%;
71.4%;
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100.0%; Pred. No. 5.1e-06;
tive 0; Mismatches 0;
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 Score 64; DB 2;
Pred. No. 0.011;
2; Mismatches
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                                       Length 31;
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       Indels
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 9
LENGTH: 20
TYPE: PRT
ORGANISM: hepatitis C virus
                                                                                                                            ; TYPE: PRT
; ORGANISM: hepatitis C virus
US-08-974-690C-9
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US-08-974-690C-9
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                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: LEROUX-ROELS, Geert
APPLICANT: DELEYS, RObert
APPLICANT: MAERIENS, Geert
TITLE OF INVENTION: INMUNODOMINANT HUMAN T CELL EPITOPES OF HEPATITIS
TITLE OF INVENTION: VIRUS
                                                                                                                                                                              SOFTWARE: PatentIn version 3.1
SEQ ID NO 9
LENGTH: 20
                                                              Matches
                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 9, Application US/08974690C Patent No. 6613333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: EP 93402718.6
PRIOR FILING DATE: 1993-11-04
NUMBER OF SEQ ID NOS: 286
                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/08/974,690C CURRENT FILING DATE: 1997-11-19 PRIOR APPLICATION NUMBER: PCT/EP94/03555 PRIOR FILING DATE: 1994-10-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT FILING DATE: 1996-04-25
PRIOR APPLICATION NUMBER: PCT/EP94/03555
PRIOR FILING DATE: 1994-10-28
PRIOR APPLICATION NUMBER: EP 93402718.6
PRIOR FILING DATE: 1993-11-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/08/635,886C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: DELEYS, Robert
APPLICANT: MAERTENS, Geert
TITLE OF INVENTION: IMMUNODOMINANT HUMAN T CELL EPITOPES OF HEPATITIS
TITLE OF INVENTION: VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: LEROUX-ROELS, Geert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 2752-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
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                            10 PTDPRHRSRNVG 21
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                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     46.3%;
                                                                            46.3%;
                                                                            Score 57;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Mismatches
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                                                                          DB 4;
0.07;
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                                                                                          Length 20;
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                                                          Indels
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COMPUTER READABLE FORM:

MEDIUM TYPE: FICATION

MEDIUM TYPE: FILM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/444,818

FILING DATE:

CLASSIFICATION NUMBER: US/08/444,818

PRIOR APPLICATION UNMBER: US/08/403,590

FILING DATE: 14-MAR-1995

APPLICATION NUMBER: 33,895

RESERENCE DOCKET NUMBER: 33,895

REFERENCE DOCKET NUMBER: 0110.002

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

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TELECOMMUNICATION INFORMATION:
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Best Local Similarity
Matches 10; Conserve
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APPLICANT: Ohue, Chiharu
APPLICANT: Ohue, Chiharu
APPLICANT: Vagi, Chiharu
APPLICANT: Yagi, Shintaro
TITLE OF INVENTION: METHOD FOR MEASUREMENT OF
FILE REFERENCE: 594.352USWO
CURRENT APPLICATION NUMBER: US/10/133,007
CURRENT FILING DATE: 2002-04-26
PRIOR APPLICATION NUMBER: US/9/509,449
PRIOR APPLICATION NUMBER: US/9/509,449
PRIOR APPLICATION NUMBER: JP 10-216094
PRIOR APPLICATION NUMBER: DT/JP99/04129
PRIOR FILING DATE: 1998-07-30
PRIOR FILING DATE: 1999-07-30
PRIOR FILING DATE: 1999-07-30
NUMBER OF SEQ ID NOS: 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn version 3.1
SEQ ID NO 6
LENGTH: 20
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No. 6150087
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Rutteer, William J.
APPLICANT: RUTEER, WILLIAM J.
NUMBER OF INVENTION: NAMBY Diagnostics
NUMBER OF SEQUENCES: 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 301, Application US/08444818 Patent No. 6150087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
OTHER INFORMATION: Fused polypeptide including Hepatitis C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Chiron Corporation
STREET: 4560 Horton Street
                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 94608-2916
                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Emeryville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 6,
6623
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ilarity 100.0%;
Conservative
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0.098;
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CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/444,818
FILING DATE:
APPLICATION HATA:
APPLICATION NUMBER: US/08/403,590
FILING DATE: 14-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Harbin, Alisa A.
REGISTRATION NUMBER: 33,895
REGISTRATION NUMBER: 33,895
REGISTRATION NUMBER: 33,895
REGISTRATION THORNATION:
TELEPHONE: (508)359-3876
TELEPHONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: :
SEQUENCE CHARACTERISTICS:
ENGTH: 8 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-444-818-301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
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US-08-444-818-299
Search completed: June 29, 2004, 12:09:59 Job time: 17.2941 secs
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Patent NO. 6150087
GENERAL INFORMATION:
APPLICANT: Chien, David Y.
APPLICANT: Rutter, William J.
APPLICANT: Rutter, William J.
TITLE OF INVENTION: NAMBY Diagnostics and Vaccines
NUMBER OF SEQUENCES: 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 40.7%; Score 50; DB 3; Length 8; Best Local Similarity 100.0%; Pred. No. 3e+05; Matches 8; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Chiron Corporation
STREET: 4560 Horton Street
CITY: Emeryville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
ZIP: 94608-2916
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                                                                                                                                                                                                                                                                                     Similarity
8; Conserv
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                                                                                                                                                                                                                                                                                 39.8%; Score 49; DB 3; ilarity 100.0%; Pred. No. 3e+05; Conservative 0; Mismatches
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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Gapop 10.0 , Gapext 0.5
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123
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137.314 Million cell updates/sec
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Cgn2_6/ptodata/1/pubpaa/USO7_PUBCOMB.pep:*

(cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB_pep:*

(cgn2_6/ptodata/1/pubpaa/USO6_NEW_PUB.pep:*

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(cgn2_6/ptodata/1/pubpaa/USO0E_PUBCOMB.pep:*

(cgn2_6/ptodata/1/pubpaa/USO0E_PUBCOMB.pep:*

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(cgn2_6/ptodata/1/pubpaa/USO0E_PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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α	, L	1	12	14	14	14	14	14	10	14	12	12	12	14	10	DB
US-U8-344-824-83	08-10-350-719-180	10 10 000 100	US-10-651-165-9	US-10-268-569-12	US-10-268-561-12	US-10-268-569-11	US-10-268-561-11	US-10-173-480-57	US-09-891-983A-30	US-10-371-540-22	US-10-296-734-422	US-10-651-165-8	US-10-296-734-420	US-10-173-480-56	US-09-891-983A-29	ID
Sequence 83, Appl	Sequence 180, App	Track of the property	٥.	12,	•	Sequence 11, Appl	•	Sequence 57, Appl	Sequence 30, Appl	Sequence 22, Appl	Sequence 422, App	Sequence 8, Appli	\sim	Sequence 56, Appl	Sequence 29, Appl	Description

RESULT 2 US-10-173-480-56

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equence 5	equence 564,	quence 349,	equence 348,	ice 347,	equence 107,	ence 107,	quence 374:	quence 36,	equence 83	Sequence 2	84, Appl	equence 106, Ap	equence 106, Ap	quence 3148	equence 252, Ap	equence 252, Ap	equence 48, App	61,	ce 681, Ap	681	ce 28,	ce 30, z	e 28430,	nce 630, Ap	equence 6	equence 630, Ap	equence 33805,	equence 55	8, Ap

ALIGNMENTS

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APPLICANT: Leary, Thomas P.
APPLICANT: Desai, Suresh
APPLICANT: Stewart, James L.
TITLE OF INVENTION: Methods For The simultaneous Detection
TITLE OF INVENTION: Of HCV Antigens And HCV Antibodies
FILE REFERENCE: 6821.US.01
CURRENT APPLICATION NUMBER: US/09/891,983A
CURRENT FILING DATE: 2001-06-26
NUMBER OF SEQ ID NOS: 36
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 29
LENGTH: 25
TYPE: PAT
ORGANISM: Hepatitis C Virus
US-09-891-983A-29
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US-09-891-983A-29
                                                                       Query Match
Best Local Similarity
Matches 19; Conserv
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Publication No. US20030108858A1
GENERAL INFORMATION:
APPLICANT: Abbort Laboratories
APPLICANT: Shah, Dinesh O.
APPLICANT: Dawson, George A.
                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
                         1 PRGSRPSWGPTDPRHRSRNVG 21
IJ
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Muerhoff, A. Scott
Jiang, Lily
Pohin A.
PRGSRPSWGPTDPRRRSRNLG 25
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                                                                     91.1%;
ilarity 90.5%;
Conservative
                                                                   Score 112; DB 10;
Pred. No. 1.7e-07;
                                                                                                      Length 25;
                                                                     Indels
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                                                                   Gaps
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; Sequence 8, Application US/10651165
                RESULT 4
US-10-651-165-8
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                                                                                                                                                                                                                                                 ; OTHER INFORMATION: HepC la segment 7 US-10-296-734-420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 3
US-10-296-734-420
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                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/296,734
CURRENT FILING DATE: 2003-08-04
PRIOR APPLICATION NUMBER: AU P07761/00
PRIOR FILING DATE: 2000-05-26
NUMBER OF SEQ ID NOS: 1507
SOFTWARE: PatentIn version 3.2
SEQ ID NO 420
SEQ ID NO 420
                                                                                                                                                                         Matches
                                                                                                                                                                                       Query Match
Best Local
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TITLE OF INVENTION: OF HCV ANTIGENS AND HCV ANTIBODIES

FILE REFERENCE: 6821.US.P1

CURRENT APPLICATION NUMBER: US/10/173,480

CURRENT FILING DATE: 2002-06-17

PRIOR APPLICATION NUMBER: 09/891,983

PRIOR APPLICATION NUMBER: 09/891,983

PRIOR APPLICATION NUMBER: 09/891,983

PRIOR FILING DATE: 2001-06-26

NUMBER OF SEQ ID NOS: 63

SOFTMARE: FastSEQ for Windows Version 4.0

SEQ ID NO 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Abbott Laboratories
APPLICANT: Shah, Dinesh O.
APPLICANT: Dawson, Greoge A.
APPLICANT: Muerhoff, A. Scott
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Thompson, Scott A APPLICANT: Ramshaw, Ian A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Ramshaw, Ian A
TITLE OF INVENTION: Synthetic molecules and uses therefor
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                                                                                                                                                                                                                                                                                          LENGTH: 30
TYPE: PRT
ORGANISM: Artificial
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TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: HCV-Core derived peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
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                                                                                                                                                                                         Similarity
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                                                                                            PRGSRPSWGPTDPRRRSRN 30
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Leary, Thomas P.
Desai, Suresh
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                                                                                                                                                                       Conservative
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90.5%;
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94.7%;
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                                                                                                                                                              0;
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Pred. No. 1.6e-06;
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                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                          Length 30;
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FILE REFERENCE: 2551-94

FILE REFERENCE: 2551-94

CURRENT APPLICATION NUMBER: US/10/651,165

CURRENT FILING DATE: 2003-09-02

PRIOR APPLICATION NUMBER: US/08/974,690C

PRIOR APPLICATION NUMBER: US/08/974,690C

PRIOR APPLICATION NUMBER: ECT/EB94/03555

PRIOR FILING DATE: 1994-10-28

PRIOR PRIOR APPLICATION NUMBER: EP 93402718.6

PRIOR FILING DATE: 1993-11-04

NUMBER OF SEQ ID NOS: 286

SOFTWARE: PATENTIN VETSION 3.1

SEQ ID NO 8

TUDE TOTALLY SECURITY OF SECURITY SECU
; Sequence 22, Application US/10371540
; Publication No. US20030198644A1
; GENERAL INFORMATION:
; APPLICANT: Roche Diagnostics GmbH
; TITLE OF INVENTION: HCV PEFFIDE ANTIGENS AND METHODS FOR THE DETERMINATION OF HCV
; FILE REFERENCE: 9793/129
                                                                                                                                                                                                                           RESULT 6
US-10-371-540-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: HepC la segment 8 US-10-296-734-422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
US-10-296-734-422
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Thompson, Scott A
APPLICANT: Ramshaw, Ian A
TITLE OF INVENTION: Synthetic molecules and uses therefor
FILE REFERENCE: Savine
CURRENT FILING SAVINE
CURRENT FILING DATE: 2003-08-04
PRIOR APPLICATION NUMBER: AU PQ7761/00
PRIOR FILING DATE: 2000-05-26
NUMBER OF EEQ ID NOS: 1507
SOFTWARE: Patentin version 3.2
SEQ ID NO 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 422, Applic Publication No. US20 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local (
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: LERCUX-ROELS, Geert
APPLICANT: DELEYS, Robert
APPLICANT: MAERTENS, Geert
TITLE OF INVENTION: IMMUNODOMINANT HUMAN T CELL EPITOPES OF HEPATITIS C
TITLE OF INVENTION: VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 30
TYPE: PRT
ORGANISM: Artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: hepatitis C virus
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94.1%;
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Pred. No. 2.8e-05;
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APPLICANT: Stewart, James L.

ITITLE OF INVENTION: Methods For The simultaneous Detection

TITLE OF INVENTION: Of HCV Antigens And HCV Antibodies

FILE REFERENCE: 6821.US.O1

CURRENT APPLICATION NUMBER: US/09/891,983A

CURRENT FILING DATE: 2001-06-26

NUMBER OF SEQ ID NOS: 36

NUMBER OF SEQ ID NOS: 36

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 30

LENGTH: 25

TYPE: PRT

ORGANISM: Appatitis C Virus
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CURRENT FILING DATE: 2003-02-21
PRIOR APPLICATION NUMBER: 09/689,678
PRIOR FILING DATE: 2000-10-13
PRIOR APPLICATION NUMBER: 08/604,365
PRIOR FILING DATE: 1996-02-21
PRIOR APPLICATION NUMBER: P41 41 304.1
PRIOR PRILING DATE: 1991-12-14
PRIOR FILING DATE: 1991-12-14
PRIOR PELING DATE: 1991-12-14
PRIOR APPLICATION NUMBER: P42 09 215.9
PRIOR PILING DATE: 1992-03-21
PRIOR APPLICATION NUMBER: PCT/EP92/01468
PRIOR APPLICATION NUMBER: P41 22 160.5
PRIOR FILING DATE: 1992-06-30
PRIOR PILING DATE: 1991-07-04
NUMBER OF SEQ ID NOS: 32
SOFTWARE: PatentIn version 3.1
SEQ ID NO 22
LENGTH: 15
RESULT 8
US-10-173-480-57
Sequence 57, Application US/10173480
; Publication No. US20030152948A1
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US-09-891-983A-30
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Best Local S
Matches 13
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TYPE: PRT
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Similarity 100.0%; Pred. No. 0.00031;
14; Conservative 0; Mismatches 0;
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                                                                                                                            SWGPTDPRRRSRNLG
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Leary, Thomas P.
Desai, Suresh
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No. US20030108858A1
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US-10-268-561-11

(Sequence 11, Application US/10268561

(Publication No. US20030148333A1

(GENERAL INFORMATION:
APPLICANT: Ortho-Clinical Diagnostics, Inc.
ITILS OF INVENTION: HCV Anti-Core Monoclonal Antibodies
FILE REFERENCE: CDS0286

(CURRENT APPLICATION NUMBER: US/10/268,561

(CURRENT FILING DATE: 2002-10-10

(PRIOR APPLICATION UNUMBER: US 60/337453

(PRIOR FILING DATE: 2001-11-05

(NUMBER OF SEQ ID NOS: 19

(SOUTHARE: Patentin version 3.1

LENGTH: 15

(Type: Dat
                                                             RESULT 10
US-10-268-569-11
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Sequence 11, Application US/10266569
Publication No. US20030152965A1
GENERAL INFORMATION:
APPLICANT: Ortho-Clinical Diagnosti
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Best Local S
Matches 13
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Best Local
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APPLICANT: Stewart, James L.
TITLE OF INVENTION: METHODS FOR THE SIMULTANEOUS DETECTION
TITLE OF INVENTION: OF HCV ANTIGENS AND HCV ANTIBODIES
FILE REFERENCE: 6821.US.P1
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                                                                                                                                                                                                                                                                                                              TYPE: PRT
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5 PRGSRPSWGPT 15
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Gutierrez, F
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Desai, Suresh
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Pred. No.
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APPLICANT: Ortho-Clinical Diagnostics, Inc. TITLE OF INVENTION: HCV Core Protein Sequer FILE REFERENCE: CDS-0288

Sequences

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APPLICANT: Ortho-Clinical Diagnostics, Inc.
TITLE OF INVENTION: HCV Core Protein Sequences
FILE REFERENCE: CDS-0288
CURRENT APPLICATION NUMBER: US/10/268,569
CURRENT FILING DATE: 2002-10-10
PRIOR APPLICATION NUMBER: 60/347,303
PRIOR FILING DATE: 2001-11-11
NUMBER: OF SEQ ID NOS: 19
SOFTWARE: PatentIn version 3.1
SEQ ID NO 12
LENGTH: 15
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                                                                ; LENGTH: 15
; TYPE: PRT
; ORGANISM: Hepatitis C virus
US-10-268-569-12
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Sequence 12, Application US/10268569
Publication No. US20030152965A1
GENERAL INFORMATION:
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US-10-268-561-12
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Best Local S
Matches 11
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Publication No. US20030148333A1
GENERAL INFORMATION:
APPLICANT: Ortho-Clinical Diagnostics, Inc.
TITLE OF INVENTION: HCV Anti-Core Monoclonal
FILE REFERENCE: CDS0286
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CURRENT FILING DATE: 2002-10-10
PRIOR APPLICATION NUMBER: 60/347,303
PRIOR FILING DATE: 2001-11-11
NUMBER OF SEQ ID NOS: 19
SOFTWARE: Patentin version 3.1
SEQ ID NO 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn version 3.1 SEQ ID NO 12 LENGTH: 15
             Query Match
Best Local
   Matches
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Best Local
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CURRENT FILING DATE: 2002-10-10
PRIOR APPLICATION NUMBER: US 60/337453
PRIOR FILING DATE: 2001-11-05
RUMBER OF SEQ ID NOS: 19
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TYPE: PRT
ORGANISM: Hepatitis C virus
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                 Similarity
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52.8%; ilarity 91.7%; Conservative
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91.7%;
Score 65; DB 14
Pred. No. 0.11;
0; Mismatches
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Pred. No.
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Pred. No. 0.061;
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                                  DB 14;
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                               Length 15;
     Indels
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GENERAL INFORMATION:

GENERAL INFORMATION: IMPROVEMENTS IN OR RELATING TO SCREENING FOR PAPILLOMA

TITLE OF INVENTION: IMPROVEMENTS IN OR RELATING TO SCREENING FOR PAPILLOMA

TITLE OF INVENTION: VIRUSES

FILE REFERENCE: 18396/2162

CURRENT APPLICATION NUMBER: US/10/350,719

CURRENT FILING DATE: 2003-01-24

PRIOR APPLICATION NUMBER: PCT/GB01/01176

PRIOR APPLICATION NUMBER: PCT/GB01/01176

PRIOR APPLICATION NUMBER: GB0018140.4

PRIOR FILING DATE: 2000-07-24

NUMBER: GB0018140.4

PRIOR FILING DATE: 2000-07-24

NUMBER: PATENTIAL DA
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PRIOR FILING DATE: 1997-11-19
PRIOR PELICATION NUMBER: PCT/EP94/03555
PRIOR FILING DATE: 1994-10-28
PRIOR APPLICATION NUMBER: EP 93402718.6
PRIOR FILING DATE: 1993-11-04
NUMBER OF SEO ID NOS: 286
SOFTWARE: PATENTIN VETSION 3.1
SEQ ID NO 9
LENGTH: 20
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US-10-651-165-9
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Publication No. US20040047877A1
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APPLICANT: DELEYS, Robert
APPLICANT: MAERTENS, Geert
TITLE OF INVENTION: IMMUNODOMINANT HUMAN T
TITLE OF INVENTION: VIRUS
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CURRENT APPLICATION NUMBER: US/10/651,165
CURRENT FILING DATE: 2003-09-02
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ORGANISM: hepatitis C virus
                                                                                                                                        FEATURE:
NAME/KEY: misc_feature
LOCATION: (18)..(18)
OTHER INFORMATION: Xaa can be any naturally occurring amino
                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Human papillomavirus
Local Similarity nes 8; Conserv
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US-08-344-83
US-08-344-83
US-08-344-83
Sequence 83, Application US/08344824
Publication No. US20030152580A1
Publication No. USASSEE
REPLICANT: SIDNEY, John
PUBLE OF INVENTION: HLA BINDING PEPTIDES AND THEIR USES
NUMBER OF SEQUENCES: 399
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend Khourie and Crew
STREET: Che Market Plaza, Steuart Street Tower, 20th
STREET: San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                            TELEPHONE: (415) 543-9600

TELEPAX: (415) 543-9600

INFORMATION FOR ESO ID NO: 83:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
TYPE: amino acids
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA
US-08-344-824-83
Search completed: June 29, 2004, 12:21:22 Job time : 44.2353 secs
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MIDDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: BATENITA RElease #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/344,824
FILING DATE: 23-NOV-1994
CILASSIFICATION DATA:
APPLICATION NUMBER: US 08/278,634
FILING DATE: 21-UU-1994
AFTICHEST/AGENT INFORMATION:
NAME: BASTIAN, Kevin L.
REPERENCE/DOCKET NUMBER: 34,774
REPERENCE/DOCKET NUMBER: 34,774
REPERENCE/DOCKET NUMBER: 14137-80-1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 543-9600
                                                                                                                                                                                                 Matches
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Best Local S
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Local Similarity 100.0%; Pred. No. 1e+06;
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Perfect score:
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144.287 Million cell updates/sec
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Copyright (c) 1993 - 2004 Compugen Ltd
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ALIGNMENTS

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RESULT 2
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orf 3' of cycl - Rhodobacter sphaeroides (fragment)
C15pecies: Rhodobacter sphaeroides
C15pecies: C165pecies: C165pecies: C15pecies: C15pecies: C15pecies: A15pecies: A15pecies: A165pecies: A
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A;Residues: 1-29 <ROT>
A;Note: sequence extracted fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleocapsid protein - porcine transmissible gastroenteritis virus (fragment) C. Species: porcine transmissible gastroenteritis virus C. Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change 20-Sep-1999 C. Accession: S10448 R. Page, K.W., Britton, P. Boursnell, M.E.G. submitted to the EMBL Data Library, March 1990 A. Reference number: S10447 A. Accession: S10447 A. Accession: S10448
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A;Residues: 1-23 <PAG-
A;Crose-references: EMBL:X5Z157; NID:g59010; PIDN:CAA36410.1; PID:g59011
C;Superfamily: coronavirus nucleocapsid protein
C;Keywords: nucleocapsid
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QGFRPRHGATGDRHTLGLKRDRSV 28
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of R

RESULT B70566

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C; Genetics:
A; Gene: merD
A; Mobile elem
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c;Species: Micromonospora griseorubida
c;Date: 19-Mar.1997 #sequence_revision 18-Jul-1997 #text_change 05-Nov-1999
C;Accession: $51593
R;Inouye, M; Takada, Y; Muto, N; Beppu, T; Horinouchi, S.
Mol. Genet. 245, 456-464, 1994
A;Title: Characterization and expression of a p-450-like mycinamicin biosynthesis gene
A;Cross-references: EMBL:D16098; NID:g286050; PIDN:BAA03671.1; PID:d1004186; PID:g829046
                                                A;Reference number: S51593; MUID:95107242; PMID:7808395
A;Accession: S51593
A;Molecule type: DNA
A;Residues: 1-28 <INO>
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R;Osbourn, S.E.V.; Turner, A.K.; Grinsted, J.
submitted to the EMBL Data Library, March 1994
A;Description: The structure of the bacterial transposable element,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              probable ribosomal protein L36 - Mycobacterium tuberculosis (strain H37RV)
C;Species: Mycobacterium tuberculosis
C;Date: 17-Jull-1998 #sequence_revision 17-Jul-1998 #text_change 20-Jun-2000
C;Accession: B70566
R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Gordon, R;Cole, S.T.; Brosch, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Holroyd, (stajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S.
Nature 393, 537-544, 1998
A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.
A;Title: Deciphering the biology of Mycobacterium tuberculosis from the complete genome A;Reference number: A70500; MUID:98295987; PMID:9634230
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C;Superfamily: Escherichia coli ribosomal protein L36
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A;Experimental source: strain H37Rv
C;Genetics:
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A;Molecule type: DNA
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A;Status: preliminary; nucleic acid sequence not shown; translation not shown
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A;Residues: 1-24 <OSB>
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7; Conserve
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62.5%;
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hypothetical protein SC10H5.05 SC10H5.05 - Streptomyces coelicolor C;Species: Streptomyces coelicolor C;Date: 05-Nov-1999 #sequence_revision 05-Nov-1999 #text_change 05-Nov-1999 C;Accession: T34643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R.; Davies, R.M.; Davlin, K.; Duthoy, S.; Feltwell, T.; Fras. eam, M.A.; Rutherford, K.M.
Nature 409, 1007-1011, 2001
A;Authors: Rutter, S.; Seeger, K.; Simon, S.; Simmonds, M.; & A;Title: Massive gene decay in the leprosy bacillus.
A;Reference number, A86509; MUID;21128732; PMID;11234002
A;Accession: D87154
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C;Superfamily: Escherichia coli ribosomal protein L36
                                                                                   T34643
                                                                                                      RESULT 8
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Int. J. Protein Res. 1, 221-224, 1969
Int. J. Protein Res. 1, 221-224, 1969
A;Title: A new method for fractionation of protamines and the amino acid sequences of sa A;Reference number: A91774; MUID:72030546; PMID:4953052
A;Accession: A02670
                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:AL450380; NID:g13093616; PIDN:CAC30916.1; GSPDB:GN00147
                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-37 <STO>
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C;Date: 12-Aug-1981 #sequence_revision 12-Aug-1981 #text_change 16-Feb-1997
C;Accession: A02670
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A;Residues: 1-33 <AND>
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N;Alternate nam
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9; Conserv
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K.; Duthoy, S.; Feltwell, T.; Fraser, A.; Hamlin, N.;
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Holroyd
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A;Cross-references: GB:X59250; GB:S81088; NID:g44071; PIDN:CAA41942.1; PID:g44076
A;Note: sequence extracted from NCBI backbone (NCBIN:81088; NCBIP:81093)
R;Bolotin, A.; Wincker, P.; Mauger, S.; Jaillon, O.; Malarme, K.; Weissenbach, J.; Ehrli Genome Res. 11, 731-753, 2001
A;Title: The complete genome sequence of the lactic acid bacterium Lactococcus lactis sg A;Reference number: A86625; MUID:21235186; PMID:11337471
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J. Gen. Microbiol. 137, 2595-2600, 1991
A;Title: Nucleotide sequence of a Lactococcus lactis gene cluster encoding adenylate A;Reference number: A44812; MUID:92148378; PMID:1783905
A;Accession: D44812
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A;Molecule type: DNA
A;Residues: 1-38 <KO2>
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C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 03-Aug-2001
C;Accession: S17989; D44812; G86883
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A;Molecule type: DNA
A;Residues: 1-29 <OLI>
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A; Residues: 1-38 <STO>
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A;Residues: 1-38 <KOI>
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                                                                                                             Query Match
Best Local !
                                                                                                                                                                                                     Superfamily:
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Best Local 9
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  28
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  PANPKHKQR
                                           PTDPRHRSR 18
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                                                                                                                                                                                                   Escherichia coli ribosomal protein L36
                                                                                          Conservative
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EMBL:X59250; NID:g44071; PIDN:CAA41942.1; PID:g44076
                                                                                                                                                                                 biosynthesis;
36
                                                                                                           26.0%;
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                                                                                     Score 32; DB 2; Le
Pred. No. 5.2e+02;
3; Mismatches 2;
                                                                                                                                                                                 ribosome
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Pred. No. 3.4e+02;
2; Mismatches 8;
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                                                                                                                              Length 38;
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RESULT

R;Maier, R.M.; Neckermann, K.; Igloi, G.L.; Koessel, H. J. Mol. Biol. 251, 614-628, 1995
A;Title: Complete sequence of the maize chloroplast genome: A;Reference number: S58531; MUID:95395841; PMID:7666415

Accession: S58601

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d.

A;Accession:

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C;Species: Streptococ
C;Date: 22-Oct-2001 ;
C;Accession: D97898
R;Hoskins, J.A.; Albo
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J. Bacteriol. 183, 5709-5717, 2001
A;Authors: Yang, Y.; Young-Bellido, M.; Zhao, G.; Zook, C.; Baltz, R.H.; Jaskunas, A;Title: Genome of the Bacterium Streptococcus pneumoniae Strain R6.
A;Reference number: A97872; MUID:21429245; PMID:11544234
A;Accession: D97898
hypothetical protein 38 - maize chloroplast
C;Species: chloroplast Zea mays (maize)
C;Date: 29-Nov-1995 #sequence_revision 19-Jan-1996 #text_
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D97898
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C;Superfamily: Escherichia coli ribosomal protein L36
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A; Residues: 1-38 < KUR>
A; Cross-references: GB
C; Genetics:
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A;Accession: D95027
                                                                                                                                         S58601
                                                                                                                                                                                RESULT
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C;Species: Streptococcus pneumoniae
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A; Residues: 1-38 < KUR>
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Best Local S
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Pred. No. 5.2e+02;
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Pred. No. 5.2e+02;
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RESULT 13

(C2121)

(C2121)

(C2121)

(C)Species: Oncorhynchus mykiss (rainbow trout)

(C)Species: Oncorhynchus mykiss (rainbow trout)

(C)Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 23-Jul-1999

(Accession: C2121)

(R;Aiken, J.M., McKenzie, D.; Zhao, H.Z.; States, J.C.; Dixon, G.H.

Nucleic Acids Res. 11, 4907-4922, 1983

Nucleic Acids Res. 11, 4907-4922, 1983

A;Title: Sequence homologies in the protamine gene family of rainbow trout.

A;Reference number: A21211; MUID:83272939; PMID:6308564
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A;Molecule type: DNA
A;Residues: 1-38 <MAI>
A;Residues: 1-38 <MAI>
A;Cross-references: EMBL:X86563; NID:g902200; PIDN:CAA60335.1; PID:g902270
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, April 1995
C;Genetics:
                                                                                                                                    A;Molecule type: DNA
A;Rolecule type: DNA
A;Residues: 1-33 <AIK>
A;Residues: 1-33 <AIK>
A;Residues: 1-33 <AIK>
A;Residues: 1-35 <AIK>
A;Rerierose: EMBL:X01599
A;Cross-references: EMBL:X01599
A;McKay, D.J.; Renaux, B.S.; Dixon, G.H.
EMIT. J. Biochem. 158, 361-366, 1986
A;Title: Rainbow trout protamines. Amino acid sequences of six distinct protein eight from acid sequences of six distinct proteins from acid sequences from acid sequences from acid s
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C;Keywords:
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A;Title: Sequence homologies in the protamine gene family of rainbow trout.
A;Reference number: A21211; MUID:83272939; PMID:6308564
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Note: Incomplete the protamine and protamine TP21 - rainbow trout)

C;Species: Oncortynchus mykiss (rainbow trout)

C;Date: 30-Jun-1992 #sequence revision 30-Jun-1992 #text_change 01-Aug-1997

C;Accession: E21211; C24970

C;Accession: E21211; C24970

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A;Molecule type: DNA
A;Residues: 1-33 <AIK>
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Query Match
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     DB 2; Length 33; 6.2e+02;
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precorrin-6x reductase (BC 1.-...) - Pseudomonas sp. (strain SC510) (fragments)
C.Species: Pseudomonas sp.
C.Species: Pseudomonas sp.
C.Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 21-Mar-1996
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Copyright (c) 1993 - 2004 Compugen Ltd
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PRTT_ONCMY
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Q8xv34 ralstonia s
P02328 oncorhynchu
P02327
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2 lotus japon
1 cenothera h
6 pseudomonas
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5 bombus pasc
5 human immun
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9 gallus gall
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1 haemophilus
2 pasteurella
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R R R

SEQUENCE FROM N.A.
SPECIES=S.pyogenes; STRAIN=MGAS8232 / Serotype M18;
MEDLINE=21927593; PubMed=11917108;

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TIGR; SAG0081; -.
TIGR; SAG0081; -.
HAWAP; MF 00251; -; 1.
HITCEPRO; IPR000473; Ribosomal L36; 1.
PEDDom; P000244; Ribosomal L36; 1.
PEDDom; P000210; Ribosomal L36; 1.
PRODOM; P000210; Ribosomal L36; 1.
PROSITE; PS00828; RIBOSOWAL L36; 1.
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MEDLINE=22242508; Publ
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B., Primeaux C., Tian R., Kenton S., Jia
u H., Najar F., Lai H., White J., Roe B.A.
equence of Streptococcus mutans UA159, a
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                                 protein;
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AAM78670.1; -...
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PubMed=12397186;
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e L36P family of ribosomal proteins.
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A Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harrii A. Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harrii A. Gordon S.V., Eiglmeier K., Gas S., Barry C.B. III, Tekaia F., A. Badcock K., Basham D., Brown D., Chillingworth T., Connor R., A. Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd A., McLean J., Moule S., Murphy L., A. Coliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., A. Rutter S., Seeger K., Skelton S., Squares S., Squares R., A. Rutter S., Seeger K., Skelton S., Squares S., Squares R., Sulston J.B., Taylor K., Whitehead S., Barrell B.G.; Sulston J.B., Taylor K., Whitehead S., Barrell B.G.; Squares S., Squares S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
SPECIES=M.Bovis; STRAIN=BCG;
SPECIES=M.Bovis; STRAIN=BCG;
MEDLINE=96200849; PubMed=8621083;
Dubnau E., Soares S., Huang T.J., Ja
Hoverproduction of mycobacteria, Ja
Mycobacterium smegmatis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-22206494; PubMed=12218036;
Rleischmann R.D., Alland D., Eisen J.A., Carpenter L., Fleischmann R.D., Alland D., Eisen J.A., Carpenter L., Peterson J., DeBoy R., Dodson R., Gwinn M., Haft D., Hi Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva M., S pelcher A., Utterback T., Weldman J., Khouri H., Gill J Bishai W., Jacobs W.R. Jr., Venter J.C., Fraser C.M., "Whole-genome comparison of Mycobacterium tuberculosis laboratory strains.";
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01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
10-CCT-2003 (Rel. 42, Last annotation update)
50S ribosomal protein L36 (Ribosomal protein
RPMJ OR RV3461C OR MT3567.1 OR MTCY13E12.14C
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RL36_MYCTU
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SPECIES—M. Dovis; STRAIN=AF2122/97;

MEDLINE=22709107; PubMed=12788972;

MEDLINE=22709107; PubMed=12788972;

Mayor M., Duthoy S., Grondin S., Lacroix C., Monsempe C., Simon S.

Pryor M., Duthoy S., Grondin S., Lacroix C., Monsempe C., Simon S.

Harris B., Atkin R., Doggett J., Mayes R., Keating L., Wheeler P.,

Parkhill J., Barrell B.G., Cole S.T., Gordon S.V., Hewinson R.G.,

"The complete genome sequence of Mycobacterium bovis.";

Proc. Natl. Acad. Sci. U.S.A. 100:7877-7882(2003).

Proc. Natl. Acad. Sci. U.S.A. 100:7877-7882(2003).
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Mycobacterium bovis.
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales; Bacteria; Actinobacteriae; Mycobacterium.
Corynebacterineae; Mycobacteriaceae; Mycobacterium.
NCBI_TaxID=1773, 1765;
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MEDLINE=98295987; PubMed
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   SWISS-PROT entry is copyright. It is produced sen the Swiss Institute of Bioinformatics and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , Jacobs W.R. Jr.; ribosomal protein hypersensitivity t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ., Carpenter L., Willer, n.M., Haft D., Hickey E., Ermolaeva M., Salzberg S.L. Phonri H., Gill J., Mikula A
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RESULT 3
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QBXV34;
28-FEB-2003
28-FEB-2003
28-FEB-2003
                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
505 ribosomal protein L36.
RPMJ OR RSC2997 OR RS01115.
Ralstonia solanacearum (Pseudomonas solanacearum).
Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiaesa; Ralstonia.
                                                                        EMBL; AL646073; CAD16706.1; -. HAMAP; MF_00251; -; 1. InterPro; IPR000473; Ribosomal_L36.
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MEDLINE=21681879; PubMed=11823852;
Artiquena
                  Pfam; PF00444; Ribosomal_L36;
ProDom; PD002101; Ribosomal_L
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Pfam; PF00444; Ribosomal L36; 1.
ProDom; PD002101; Ribosomal L36; 1.
TIGRFAMS; TIGR01022; rpmd_bact; 1.
PROSITE; PS00828; RIBOSOMAL_136; 1.
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SEQUENCE 37 AA; 4343 MW; C92A4845315F930F CRC64;
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HISSP; P80256; 1DFE.
TIGR; MT3567.1; -.
Tuberculist; Rv3461c; -.
HAMAP; MF_00251; -; 1.
InterPro; IPR000473; Ribosomal_L36.
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EMBL; AE007160; AAK47907.1; -.
EMBL; U15140; AAB17596.1; -.
EMBL; BX248346; CAD95677.1; -.
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5; Conserv
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TIGRO1022;
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Pred. No. 1.1e+02;
2; Mismatches 1
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Best Local S
Matches 5
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Q9X7A2;
30-MAY-2000
MEDLINE-21128732; PubMed=11234002; Cole S.T., Eiglmeier K., Parkhill J., James K.D., Thomson N.F. Cole S.T., Eiglmeier K., Parkhill J., James K.D., Thomson N.F. Mheeler P.R., Honore N., Garnier T., Churcher C., Harris D., Mungall K., Basham D., Brown D., Chillingworth T., Connor R., Davies R.M., Devlin K., Duthoy S., Feltwell T., Fraser A., Ha
                                                                                                                                                                                                                                                                                                               30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
50S ribosomal protein 136.
RRMJ OR ML1961 OR MLCB1222.31C.
Mycobacterium leprae.
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
Corynabacterineae, Mycobacteriaceae; Mycobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ando T., Watanabé S.;

"A new method for fractionation of protamines and the amino acid sequences of salmine and three components of iridine.";

Int. J. Protein Res. 1:221-224 (1969).

1- FUNCTION: Protemines substitute for histones in the chromatin of sperm during the haploid phase of spermatogenesis. They compact sperm DNA into a highly condensed, stable and inactive complex.

1- SUBCELLULAR LOCATION: Nuclear.

1- TISSUE SPECIFICITY: Testis.
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P02328;
21-JUL-1986
21-JUL-1986
30-MAY-2000
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PRI2
                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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Chromosomal protein;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; B
Actinopterygii, Neopterygii; Teleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncor
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21-UUL-1986 (Rel. 01, Last sequence update)
30-WAY-2000 (Rel. 39, Last annotation updat
Protamine IA (Iridine IA)
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condensation; Nuclear protein.
33 AA; 4406 MW; F82C0A9C80A1FFF2 CRC64;
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101-AUG-1992 (Rel. 23, Created)

101-AUG-1992 (Rel. 23, Last sequence update)

11 28-FRB-2003 (Rel. 24, Last annotation update)

12 28-FRB-2003 (Rel. 41, Last annotation update)

13 28-FRB-2003 (Rel. 23, Last sequence update)

13 28-FRB-2003 (Rel. 23, Last sequence update)

14 28-FRB-2003 (Rel. 23, Last sequence update)

15 28-FRB-2003 (Rel. 23, Last sequence update)

16 28-FRB-2003 (Rel. 23, Last sequence update)

17 28-FRB-2003 (Rel. 23, Last sequence update)

18 28-FRB-2003 (Rel. 23, Last sequence update)

18 28-FRB-2003 (Rel. 23, Last sequence update)

19 28-FRB-2003 (Rel. 23, Last sequence update)

20 28-FRB-2003 (Rel. 23, Last sequence update)

21 28-FRB-2003 (Rel. 23, Last sequence update)

21 28-FRB-2003 (Rel. 23, L
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Leproma, Mil961; -.

1. HAMAP; MF 00251; -; 1.

InterPro; IPR000473; Ribosomal L36.

Pfam; PF00444; Ribosomal L36; T.

TIGREAMS; TIGR01022; rpmd_bact; 1.

PROSITE; PS00828; RIBOSOMAL L36; 1.

Ribosomal protein; Complete proteome.

Ribosomal protein; AA; 4458 MW; D22FA941710B496F CRC64;
                                                                           MEDLINE=92148378; PubMed=1783905;
Koivula T., Hemilae H.;
"Nucleotide sequence of a Lactococcus lactis gene cluster encoding
ademylate kinase, initiation factor I and ribosomal proteins.";
J. Gen. Microbiol. 137:2595-2600(1991).
                                                                                                                                                                                                                                                                                                                                                                                                         Bolotin A., Wincker P., Mauger S., Jaillon O., Malarme K., Weissenbach J., Ehrlich S.D., Sorokin A.; "The complete genome sence of the lactic acid bacterium Lactococcus lactis ssp. lactis II1403.", Genome Res. 11:731-753(2001).
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    SEQUENCE FROM N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SPECIES=L.1.lactis; STRAIN=IL1403; MEDLINE=21235186; PubMed=11337471;
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                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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EMBL; AL583923; CAC30916.1; -.
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HSSP; P80256; 1DFE.
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PIR; D97898; D97898.

PIR; S17989; S17989.

HSSP; P80256; 1DFE.

TICR; SP0233; -..

InterPro; IPR000473; Ribosomal_L36.
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                                                                                                                                                                                                                                                                                  TIGRFAMS; TIGRO1022; rpmJ_bact; 1.
PROSITE; FS00828; RIBOSOMAL_L36; 1.
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EMBL; AE007336; AAK74413.1; -.
EMBL; AE008402; AAK99016.1; -.
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MEDLINE=21357209; PubMed=11463916;
Tettelin H., Nelson K.E., Paulsen I.T., Eisen J.A., Read T.D.,
Peterson S., Heidelberg J., DeBoy R.T., Haft D.H., Dodson R.J.,
Durkin A.S., Gwinn M., Kolonay J.F., Nelson W.C., Peterson J.D.,
Umayam L.A., White O., Salzberg S.L., Lewis M.R., Radune D.,
Holtzapple E., Khouri H., Wolf A.M., Utterback T.R., Hansen C.L.,
McDonald L.A., Feldblyum T.V., Argiuoli S., Dickinson T., Hickey E.K.,
Holt I.E., Loftus B.J., Yang F., Smith H.O., Venter J.C.,
Dougherty B.A., Morrison D.A., Hollingshead S.K., Fraser C.M.;
"Complete genome sequence of a virulent isolate of Streptococcus
                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                             Pfam; PF00444; Ribosomal_L36; 1.
ProDom; PD002101; Ribosomal_L36; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SIMILARITY: Belongs to the L36P family of ribosomal proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lass J.I.;
"Genome of the bacterium Streptococcus pneumoniae strain R6.";
"J. Bacteriol. 183:5709-5717(2001).
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   28
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                                                                                                                                            Similarity
PANPKHKQR 36
                                                        PTDPRHRSR 18
                                                                                                                                                                                                                             protein;
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                                                                                                                                                                                                                                Complete proteome. 4421 MW; 892FEFE9A5939D88 CRC64;
                                                                                                                                         26.0%;
44.4%;
                                                                                                                                            Score 32;
Pred. No.
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Best Local
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P08146;
01-AUG-1988 (Rel. C
01-AUG-1988 (Rel. C
15-DEC-1998 (Rel. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT8 ONCMY
P12817;
01-OCT-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=83272939; PubMed=6308564;
Aiken J.M., McKenzie D., Zhao H.-Z., States J.C., Dixon G.H.;
Aiken J.M., McKenzie D., Zhao H.-Z., States J.C., Dixon G.H.;
"Sequence homologies in the protamine gene family of rainbow trout.",
Nucleic Acids Res. 11:4907-4922 (1983).

-i- FUNCTION: Protamines substitute for histones in the chromatin of
sperm during the haploid phase of spermatogenesis. They compact
sperm DNA into a highly condensed, stable and inactive complex.

-i- SUBCELLULAR LOCATION: Nuclear.

-i- TISSUB SPECIFICITY: Testis.
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                                                                                                                                                                                                                                                                             Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
NCBI_TaxID=8022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL, X01597; CAA25750.1; -.

PIR; C21211; C21211. Nucleosome core; Sper Cromosomal protein; Nucleosome core; Sper Testis; DNA condensation; Nuclear protein:
INIT MET 0 0
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
McKay D.J., Renaux B.S., Dixon G.H.;
"Rainbow trout protamines. Amino acid sequences of six deproteins from a single testis.";
Eur. J. Blochem. 158:361-366(1986).
-!- FUNCTION: Protamines substitute for histones in the sperm during the haploid phase of spermatogenesis. I sperm DNA into a highly condensed, stable and inacti
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Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
NCBI_TaxID=8022;
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01-APR-1993
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Pred. No. 2.5e
1; Mismatches
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1.5e+02;
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RESULT 9
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                                                               R EMBL; U32762; AAC22457.1; -.

R HSSP; P80256; 1DFE.

R HSSP; P80256; 1. -.

R HAMAP; MF 00251; -; 1.

R InterPro; IPR000473; Ribosomal L36.

R Pfam; PF00444; Ribosomal L36; I.

R ProDom; PD002101; Ribosomal L36; 1.

R PTORFAMS; TIGR01022; rpmJ bact; 1.

R PROSITE; PS00828; RIBOSOMAL L36; 1.

R PROSITE; PS00828; RIBOSOMAL L36; 1.

R RIBOSOMAI PROTECTI; Complete Protecome.

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 Matches
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                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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01-NOV-1995 (Rel. 32, Last sequence up
28-FEB-2003 (Rel. 41, Last annotation
50S ribosomal protein L36.
EPMJ OR RPL36 OR HI0798.1.
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-!- TISSUE SPECIFICITY: Testis.
PIR; E21211; E21211.
                                                                                                                                                                                                                                                                                                                                                                                                                              Science 269:496-512(1995).
-!- SIMILARITY: Belongs to the L36P family of ribosomal proteins.
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STRAIN=Rd / KW20 / ATCC 51907;
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                                                                                                                                                                                                                                                                                entities requires a license agreement (Some send an email to license@isb-sib.ch).
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Bacteria; Proteobacteria; Gam
Pasteurellaceae; Haemophilus.
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P46361;
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Local Similarity
les 4; Conser
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                 25.2%;
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                 Score 31;
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                 2.9e+02;
                                      DB 1;
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RP SEQUIF
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P81542;
15-JUL-1999
15-JUL-1999
10-OCT-2003
Gomes C.M., Faria A., Carita J., Mendes J.C., Regalla M., Huber H., Stetter K.O., Teixeira M.;
"Di-cluster, seven iron ferredoxins from hyperthermophilic Sulfolobales.";
J. Biol. Inorg. Chem. 3:499-507(1998).
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ProDom; PD002101; Ribosomal L36; 1.
TIGRPANS; TIGR01022; rpmJ bact; 1.
PROSITE; PS00828; RIBOSOMAL L36; 1.
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                                                                                           SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ribosomal protein; SEQUENCE 37 AA;
                                                                                                                                                 Metallosphaera.
                                                                                                                                                                 Archaea; Crenarchaeota;
                                                                                                                                                                              Metallosphaera prunae
                                                                                                                                                                                                                 Zinc-containing ferredoxin
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InterPro; IPR000473; Ribosomal_L36.
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-!- SIMILARITY: Belongs to the L36P family of ribosomal proteins.
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Pasteurellaceae; Pasteurella.
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                                                                                                                              TaxID=47304;
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                                                                                                                                                                                                                                                                                                                                                                                                  SDPKHKQR 35
                                                                                                                                                                                                                 (Rel. 38, Created)
(Rel. 38, Last sequence update)
(Rel. 42, Last annotation update)
ning ferredoxin (Seven-iron ferredoxin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Complete proteome.
4279 MW; 53AEE5B4CB39F83D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25.2%;
50.0%;
                                                                                                                                                               Thermoprotei; Sulfolobales; Sulfolobaceae;
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J bact; 1.
1. L36; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 31;
Pred. No.
                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                          38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1;
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NEUB_PIG
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Best Local S
Matches 9
Query Match
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21-JUL-1986 (Rel. 0
01-NOV-1988 (Rel. 0
28-FEB-2003 (Rel. 4
                                                                                    PEPTIDE
                                                                                                                                                                                                                                                                                                                                                    Minamino N., Kangawa K., Matsuo H.;
"Neuromedin B: a novel bombesin-like peptide identified in porcine spinal cord.";
                                                                   MOD
                                                                                                                                                                                                     PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minamino N., Kangawa K., Matsuo H.; "Neuromedin B and neuromedin C: two mammalian bombesin-like peptides identified in pig spinal cord and brain."; Regul. Pept. 19:127-127(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Neuromedin B-32 [Contains: Neuromedin E].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOD_RES
                                           SEQÜENCE
                                                                                                                                                                                                                                                                                                                                        Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Biochem. Biophys. Res. Commun. 130:685-691(1985)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minamino N., Sudoh T., Kangawa K., Matsuo H.; "Neuromedin B-32 and B-30: two 'big' neuromedin B identified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sus scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                    PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=85279454; PubMed=4026853;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEUB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            METAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 23-32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- SIMILARITY: Bel
HSSP; P55907; 1XER
                                                                                                                                                                             interPro; IPR000874; Bombesin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     porcine brain and spinal cord.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3lectron transport; Iron-sulfur; Repeat; 4Fe-4S; 3Fe-4S; Methylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- FUNCTION:
                                                                                                                                                                                                                                                                  chem. Biophys. Res. Commun. 114:541-548(1983).
FUNCTION: Stimulates smooth muscle contraction in a
to that of bombesin.
SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FUNCTION: Ferredoxins are iron-sulfur proteins that transfer electrons in a wide variety of metabolic reactions.

COFACTOR: Binds one 3Fe-4S and one 4Fe-4S cluster and one zinc
                                                                                                                                                                                                                                            SIMILARITY: Belongs to the bombesin/neuromedin B/ranatensin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       atom (By similarity)
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                                                                                                                                                                                                     B60301; BSPGNB.
                                                                                                                                                     PF02044; Bombesin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7
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                                                                                           family; Amidation.
23 32
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                                                                                                                                    PS00257;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RTSRPVTGDHAGHKVYAPADPPVKEKALG 35
                                           32
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19
37
38
                                           AA;
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09, Last
41, Last
                                                                                                                                  BOMBESIN; 1.
                                           3654 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata; Craniata; Vertebrata; Cetartiodactyla; Suina; Suidae;
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16
19
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24.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
Score 30;
                                           7B3FC292C953DE80 CRC64;
                                                                   AMIDATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256DB78618BC9ED5 CRC64;
                                                                                      NEUROMEDIN B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 3.5e+02
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZINC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32 AA.
DB 1;
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Length 32;
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Sus.
                                                                                                                                                                                                                                                                                                             manner similar
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Matches 4
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HSMAP; MP_00251; -; 1.

InterPro; IPR000473; Ribosomal L36.

Pfam; PF00444; Ribosomal L36; 1.

ProDom; PD002101; Ribosomal L36; 1.

IIGRFAMs; TIGR01022; rpmJ_bact; 1.

PROSITE; PS00828; RIBOSOMAL_L36; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local
                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collabora between the Swiss Institute of Bioinformatics and the EMBL outstati the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for commer entities requires a license agreement (See http://www.isb-sib.ch/annou or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.

STRAIN-56601 / Serogroup Icterohaemorrhagiae / Serovar lai;

MEDLINE=22598143; PubMed=12712204;

Ren S.-X., Fu G., Jiang X.-G., Zeng R., Miao Y.-G., Xu H.,

Ren S.-X., Fu G., Jiang Y.-G., Zeng R., Jiang H.-Q., Jia J., Tu Y.-F.,

Zhang Y.-X., Xiong H., Lu G., Lu L.-F., Jiang H.-Q., Jia J., Tu Y.-F.,

Jiang J.-X., Gu W.-Y., Zhang Y.-Q., Cai Z., Sheng H.-H., Yin H.-F.,

Zhang Y.-X., Gu W.-Y., Zhang Y.-Q., Cai Z., Sheng H.-H., Yin H.-F.,

Zhang Y., Zhu G.-F., Wann M., Huang H.-L., Qian Z., Wang S.-Y., Ma

Yao Z.-J., Shen Y., Qiang B.-Q., Xia Q.-C., Guo X.-K., Danchin A.,

Yao Z.-J., Shen Y., Qiang B.-Q., Xia Q.-C., Guo X.-K., Danchin A.,

Yao Z.-J., Shen G.-P.;

Xu J.-G., Zhao G.-P.;

Xu J.-G., Zhao G.-P.;
                                                                                                               Ribosomal protein; Complete proteome.

CONFLICT 24 24 G -> R (IN REF. 2
SEQUENCE 37 AA; 4182 MW; 5FC638666BF65D4E
                                                                                                                                                                                                                                                                 EMBL; AF115283; AAD40606.1; -.
EMBL; AE011262; -; NOT_ANNOTATED_CDS.
EMBL; AE011263; -; NOT_ANNOTATED_CDS.
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STRAIN=Lai / Serogroup Icterohaemorrhagiae /
MEDLINE=20088815; PubMed=10620683;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nature 422:888-893(2003).
-!- SIMILARITY: Belongs to the L36P family of ribosomal proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Unique physiological and pathogenic features of Leptospira interrogans revealed by whole-genome sequencing.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEMS Microbiol. Lett. 182:303-308(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zuerner R.L., Hartskeerl "Characterization of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bacteria; Spirochaetes; Spirochaetales; Leptospiraceae; Leptospira.
NCBI_TaxID=173;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-MAY-2000
10-OCT-2003
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30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Leptospira interrogans.
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28
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                                                                        Similarity
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                           TDPRHRSR 18
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(Rel. 39,
(Rel. 42,
                                                          Conservative
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Rel. 42, Last annotation
   protein L36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                     24.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the Leptospira interrogans
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R.A., van de Kemp H.,
                                                       Score 30; DB
Pred. No. 4e+0
3; Mismatches
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(IN REF. 2).
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                                                                     DB 1;
4e+02;
                                                                                                                                                                                                                                                                                                                                               noved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        update)
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6;
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                                                                                    Length 37;
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L outstation -
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RESULT 14
RL36 SYNEL
ID RL36 S
AC QBDMI2
DT 10-OCT
DT 10-OCT
DT 10-OCT
DT 10-OCT
DT 10-OCT
DT 10-OCT
RPMJ C
OS Synech
OC SACLEX
GN REMJ C
OS SYNECH
OX NCELI I
RN SEQUEN
RC STRAIN
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                AGE COOC OS STANKER TO COOC OS S
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RL36_BUCAI
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P57570;

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28-FEB-2003 (R

50S_ribosomal)
    STRAIN=Tokyo 1998;

MEDLINE=20445173; PubMed=10993077;

Shigenobu S. Watanabe H., Hattori M., Sakaki Y.,

"Genome sequence of the endocellular bacterial sy
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IAMAP; MF 00251; -; 1.

InterPro; IPR000473; Ribosomal L36.

Pfam; PF00444; Ribosomal L36; 1.

TIGRPAMs; TIGR01022; rpmJ bact; 1.

PROSITE; PS00828; RIBOSOMAL L36; 1.

Ribosomal protein; Complete proteome.

SEQUENCE 37 AA; 4450 MW; DA94AD907377EDD6
                                                                                                                                                                                                                                                                                                                                                                               Buchnera aphidicola (subsp. Acyrthosiphon pisum) (Acyrthosiphon pisum
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Nakamura Y., Kaneko T., Sato S., Ikeuchi M., Katoh H., Sasamot.
Watanabe A., Iriguchi M., Kawashima K., Kimura T., Kishida Y.,
Kiyokawa C., Kohara M., Matsumoto M., Matsuno A., Nakazaki N.,
Shimpo S., Sugimoto M., Takeuchi C., Yamada M., Tabata S.;
"Complete genome structure of the thermophilic cyanobacterium
Thermosynechococcus elongatus BP-1.";
DNA Res. 9:123-130(2002)
                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                             Enterobacteriaceae;
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                                                                                                                                                                                                                                                                                                             Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
                                                                                                                                                                                                                                                                                                                                                      symbiotic bacterium)
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10-OCT-2003 (Rel. 42, Last sequence update)
10-OCT-2003 (Rel. 42, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
50s ribosomal protein L36.
RPMJ OR RPL36 OR TSR0102.
Synechococcus elongatus (Thermosynechococcus elongatus Bacteria; Cyanobacteria; Chroococcales; Synechococcus.
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al protein L36.
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Copyright (c) 1993 - 2004 Compugen Ltd
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RESULT 2 077492 PRELIMINARY; PRT; 33 AA. 1D 077492 PRELIMINARY; PRT; 33 AA. AC 077492; (Trembirel. 08, Created) DT 01-NOV-1998 (Trembirel. 08, Last sequence update) DT 01-UN-2003 (Trembirel. 24, Last annotation update) DT 01-JUN-2003 (Trembirel. 24, Last annotation update) DT 01-JUN-2003 (Trembirel. 24, Last annotation update)	3 GSRPSWGPTDP-RHRSRNV 20 : 5 GARPWPASKCNWPPCQPNRHSTRRV 29	Query Match 32.9%; Score 40.5; DB 2; Length 39; Best Local Similarity 40.0%; Pred. No. 77; Matches 10; Conservative 3; Mismatches 5; Indels 7; Gaps	NON TER 1 1 SEQUENCE 39 AA; 4421 MW; 9A35BCE0F0F5D258 CRC64;	EMBL; AF134211; AAD34398.1;	ion of	Holt R.J., Bruce K.D., Strike P.;	STRAIN='96 SE13;	SROHENCE FROM N.A	NCBI_TaxID=93601;		mercury resistant bacterium '96 SE13.	MERD.	C	(TrEMBLrel. 12, Last	(TrEMBLrel.	Q9X689; PRELIMINARY; PRT; 39 AA.	SULT 1

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Mammalia; Eutheria;
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Submitted (APR-2001) to the
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Mus musculus (Mouse).
Bukaryota, Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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01-DEC-2001 (TrEMBLrel.
01-OCT-2003 (TrEMBLrel.
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SEQUENCE FROM N.A. STRAIN-PRCV 86/137004 (British Isolate); Page K.W., Britton P., Boursnell M.E.G.; "Sequence analysis of the leader RNA of transmissible gastroenteritis virus and
                                                                                                                                                                                                Porcine respiratory coronavirus. Viruses; ssRNA positive-strand v Coronaviridae; Coronavirus.
                                                                                                                                                                                                                                                                                    01.NOV-1996 (TrEMBLrel. 01, Creates
01.NOV-1996 (TrEMBLrel. 01, Last as
01-UN-2003 (TrEMBLrel. 24, Last as
Coronavirus PRCV nucleoprotein, 5'
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01-DEC-2001
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                                                                                                                                                                     NCBI_TaxID=11146;
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GO:0004872;
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Chordata; Craniata; Vertebrata; Euteleostomi;
Primates; Strepsirhini; Loridae; Nycticebus.
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ein, 5' region (Fragme
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Pred. No. 91;
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Pred. No.
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Q66204;
01-NOV-1996
01-NOV-1996
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NON_TER 2
SEQUENCE 23
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01-NOV-1996 (TrEMBLrel. 24, Last seq
01-UNN-2003 (TrEMBLrel. 24, Last ann
Coronavirus TGEV nucleoprotein, 5'r
Transmissible gastroenteritis virus.
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Virus Genes 0.0-0(1990).

EMBL; X52668; CAA36895.1; -.

PIR; S10448; S10448.

POR GO:001913; C:viral nucleocapsid;
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STRAIN=TGEV F8772/70 (Virulent British I
Page K.W., Britton P., Boursnell M.E.G.
"Sequence analysis of the leader RNA of
transmissible gastroenteritis virus and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; ssRNA positive-strand viruses, Coronaviridae; Coronavirus.
SEQUENCE FROM N.A.
STRAIN-RB50 / ATCC BAA-588;
MEDLINE=28827954; PubMed=12910271;
Parkhill J., Sebaihia M., Preston A.,
Harris D.E., Holden M.T.G., Churcher (
                                                                                                                                                                                                                                 O7WRA1;
01-OCT-2003 (TrEMBLrel. 25,
01-OCT-2003 (TrEMBLrel. 25,
01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                   Bordetella bronchiseptica (Bacteria; Proteobacteria; Bacteria; Bordetella.
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NON_TER
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EMBL; X52157; CAA36410.1; -.
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GO:0019013; C:viral nucleocapsid;
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nilarity 38.9%;
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38.9%;
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Betaproteobacteria; Burkholde
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3; Mismatches
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    Murphy L.D.,
C.M., Bentley
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Best Local S
Matches 6
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APARTAILI J., Sebalhia M., Preston A., Murphy L.D., Thomson N.,

APARTIS D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Mungall K.L.,

APARTIS D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Quail M.A.,

APARTIS D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Quail M.A.,

APARTIS D.E., Holden M.T.G., James K., Harris B., Quail M.A.,

APARTIS D.E., ALINE M., Cronin A., Davis P., Doggett J.,

APARTIS D.E., Hamlin N., Hauser H., Holroyd S., Jagels K.,

APARTIS D.E., Moule S., Norberczak H., O'Neil S., Crmond D., Price C.,

APARTIS D.E., Moule S., Norberczak H., O'Neil S., Crmond D., Price C.,

APARTIS D.E., Moule S., Norberczak H., O'Neil S., Crmond D., Price C.,

APARTIS D. S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K.,

APARTIS D. S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K.,

APARTIS D. S., Moule S., Barrell B.G., Maskell D.J.;

APARTIS D. S., Simmonds M., Skelton J., Squares R.,

APARTIS D. S., Stevens K.,

APARTIS D. S., STEVENS M.,

APARTIS
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Best Local S
Matches 6
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01-OCT-2003 (TrEMBLrel. 25, C
01-OCT-2003 (TrEMBLrel. 25, I
01-OCT-2003 (TrEMBLrel. 25, I
50S ribosomal_protein 136.
     Q7VTA9;
Q7VTA9;
01-OCT-2003
01-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN=12822 / ATCC BAA-587;
STRAIN=72827954; PubMed=12910271;
Preston /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cerdeno-Tarraga A.M., Temple L., James K., Harris B., Quail M.A., Achtman M., Atkin R., Baker S., Basham D., Bason N., Cherevach I., Chillingworth T., Collins M., Cronin A., Davis P., Doggett J., Feltwell T., Goble A., Hamlin N., Hauser H., Holroyd S., Jagels K., Leather S., Moule S., Norberczak H., O'Neil S., Ormond D., Price C., Rabbinowitsch E., Rutter S., Sanders M., Saunders D., Seeger K., Sharp S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K., Sharp S., Whitehead S., Barrell B.G., Maskell D.J., "Comparative analysis of the genome sequences of Bordetella pertussis, Bordetella parapertussis and Bordetella bronchiseptica."; Nat. Genet. 35:32-40(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bordetella parapertussis.
Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q7W2D3
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nilarity 75.0%;
Conservative
     (TrEMBLrel.
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                                                      PRELIMINARY,
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75.0%;
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25,
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   Created)
Last seq
                                                                                                                                                                                                         Score 38; DB Pred. No. 1.7e
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Last annotation update)
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Pred. No. 1.7e+02;
1; Mismatches 1;
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                                                        PRT;
 sequence update)
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1.7e+02;
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Q05846;
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PRELIMINARY;

PRT;

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RESULT 9
Q9YPG8
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RP Parkhill J., Sebalhia M., Preston A., Murphy L.D., Thomson N.,
RA Harris D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Mungall K.L.,
RA Achtman M., Atkin R., Baker S., Basham D., Bason N., Cherevach I.,
RA Achtman M., Atkin R., Baker S., Basham D., Bason N., Cherevach I.,
RA Achtman M., Atkin R., Hamlin N., Hauser H., Holroyd S., Jugels K.,
RA Feltwell T., Goble A., Hamlin N., Hauser H., Holroyd S., Jugels K.,
RA Feltwell T., Moule S., Norberczak H., O'Neil S., Ormond D., Price C.,
RA Feltwell T., Stummonds M., Sanders M., Saunders D., Seeger K.,
RA Sharp S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K.,
Wa Sharp S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K.,
Whitehead S., Barrell B.G., Maskell D.J.;
Bordetella parapertussis and Bordetella bronchiseptica.";
Butter S., Squares R., Squares R., Squares S., Stevens K.,
Nat. Genet 35:32-40(2003).
                                                                                       Matches
                                                                                                       Query Match
Best Local (
                                                                                                                                                                                     SEQUENCE FROM N.A.

MEDIINE-83216333; PubMed-6304353;

Kitamura N., Yoshida M.;

"Small deletion in src of Rous sarcoma virus monophenotypes: Identification of 207-nucleotide deletion of the product with protein kinase activity.";

J. Virol. 46:985-992(1983).

EMBL; J02349; AAA42577.1; -...

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Best Local
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Q9YPG8;
01-MAY-1999
                                                                                                                                                                         EMBL; J02
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-MAY-1999 (TrEMBLrel. 10, Last annotation update)
(Prague 'wild type') src gene; amino acids 1-40 (Fragment).
Rous sarcoma virus.
Viruses; Retroid viruses; Retroviridae; Alpharetrovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=11886;
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STRAIN=Tohama I / ATCC BAA-589 / NCTC 13251;
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Alcaligenaceae; Bordetella.
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EQUENCE 37 AA; 4332 MW; 53B3EBBE5487DADD CRC64;
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    7
                                          φ
                                                                                  Similarity 7; Conserv
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GPGDPGQRRRGLG
                                        GPTDPRHRSRNVG 21
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                                                                                                                                                                         40 AA;
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                                                                                Conservative
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                                                                                                                                                                            3989 MW;
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                                                                                  Score 38; DB
Pred. No. 1.8e
1; Mismatches
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1; Mismatches
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                                                                                                     DB 15;
1.8e+02;
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1.7e+02;
                                                                                                                                                                                                                                                                                    modifying transformation deletion and its smaller
                                                                                                                          Length 40;
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                                                                                                                                                                                                                                                                                                                                                                                                 MO1. Phylogenet. Evol. 21:93-102(2001).

-i- SUBCELLULAR LOCATION: NUCLEAR (BY SIMILARITY).

-i- SINTLARITY: BELONGS TO THE NUCLEAR HORMONE RECEPTOR FAMILY.

EMBL; AP323590; AAL29203.1; -.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0004872; F:receptor activity; IEA.
GO; GO:0003700; F:transcription factor activity; IEA.
GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.
GO; GO:0006350; P:transcription; IEA.
InterPro; IFR001628; Znf_C4steroid.
Pfam; PF00105; Zf-C4: 1
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Submitted (DEC-1992) to tl
EMBL; L02104; AAA61342.1;
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Donohue T.J.;
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NON TER
SEQUENCE
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DNA-binding; Metal-binding; Nucl
DNA-binding; Metal-binding; Zinc;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Nuclear receptor AmNR10 (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=1063;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Acropora.";
Mol. Phylogenet.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE=21490824; PubMed=11603940;
Grasso L.C., Hayward D.C., Trueman
Ball E.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Astrocoenina; Acroporidae;
NCBI_TaxID=45264;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Genetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "The evolution
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Acropora millepora.
Bukaryota; Metazoa; Cnidaria; Anthozoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q95WF4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C40638; C40638.
      19
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10; Conserv
                                                                                                                      Similarity 6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       evidence for the role of isocytochrome f Rhodobacter sphaeroides.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QGFR PRHGATGDRHTLGLKRDRSV
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   PVDKRHRNR
                                                                PTDPRHRSR
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9 AA;
                                                                                                                             Conservative
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                                                                                                                                                                                                                                                AA;
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3263 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nuclear receptors:
                                                            18
      27
                                                                                                                                                                                                                                                3302 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30.5%;
41.7%;
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66.7%;
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to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Schilke B.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Trueman
                                                                                                                                                                                                                                                                                                                                       Nuclear protein;
inc; Zinc-finger.
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                                                                                                                                                      Score 36;
Pred. No.
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                                                                                                                             Pred. No. 2.4; Mismatches
                                                                                                                                                                                                                                                   2E0C29C3A9691CA5 CRC64;
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                                                                                                                      2.4e+02;
2.7 2;
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7;
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Q66546;
Q1-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 101, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
EBV B95-8 C1(e) DNA with antigen coding ORF (Fragment)
Human herpesvirus 4 (Epstein-Barr virus).
Viruses, dsDNA viruses, no RNA stage; Herpesviridae;
Viruses, dsDNA viruses, no RNA stage; Herpesviridae;
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NON TER
SEQUENCE
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MEDININ=88217505; PubMed=2835748;
Walls D. perricaudet M., Gannon F.;
"The analysis of EBV proteins which ar.
Nucleic Acids Res. 16:2859-2872(1988).
EMBL; X07530; CAA30405.1; -.
NON_TER
   Q7VKF4
Q7VKF4;
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Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta;
Neoptera; Orthopteroidea; Dictyoptera; Blattaria; E
Blattidae; Periplaneta.
NCBI_TaxID=6978;
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01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Large conductance calcium activated potassium channel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q819U9;
01-MAR-2003
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NCBL_TaxID=10376;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Deret C., Messutat S., Walther C., Wicher D.;
"Cloning and Alternative Splicing of a large conductance activated potassium channel from Periplaneta americana.";
Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF452166; AAN76821.1;
EMBL; AF452166; F:ion channel activity; IEA.
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                                                                                                                                                                                                                                                                    GSRPSWGPTDPRHRSR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34 AA;
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Pred. No. 3.5e
2; Mismatches
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Pred. No. 4.2e
2; Mismatches
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                                             PRT;
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3.5e+02;
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7;
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STRAIN=35000HP / ATCC 700724;

Munson R.S. Jr., Ray W.C., Mahairas G., Sabo P., Mungur l
Johnson L., Nguyen D., Wang J., Forst C., Hood L.;

"The complete genome sequence of Haemophilus ducreyi.";

submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.

EMBL; AB017156; AAP96675.1;

Ribosomal protein; Complete proteome.

Ribosomal protein; Complete SaAB3EB09A2F94ED CRC64;
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NON TER
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MEDILINE=95316863; PubMed=7796416;
Ji W., Qu G.Z., Ye P., Zhang X.Y., Halabi S., Ehrlich M.;

"Frequent detection of bcl-2/JH translocations in human blood and organ samples by a quantitative polymerase chain reaction assay.";

Cancer Res. 55:2876-2882(1995).
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Bacteria, Proteobacteria, Gammaproteobacteria,
Pasteurellaceae, Haemophilus.
NCBI_TaxID=730;
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
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Pred. No. 4.6e
2; Mismatches
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4.6e+02;
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